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*Upper Layer (Layer 3) Signaling Standard for
cdma2000 Spread Spectrum Systems – Release
A Addendum 2*

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1 No text.

1 **ADDENDUM INTRODUCTION**

2 This addendum is provided to correct errors and omissions in the published version of
3 3GPP2 C.S0005 A. This addendum replaces 3GPP2 C.S0005 A.

4 Revisions are indicated by change bars located in the left or right hand margins, and also
5 by specific markings applied to the text.

6 New text is underlined, as shown below.

7 Deleted text is crossed out, as shown below.

8 This is how deleted text is identified.

9 A modified figure is marked similarly to modified text. A new figure is underlined; a deleted
10 figure is crossed out through the middle of the figure.

11 The table of contents does not identify revisions to any section heading, table, or figure.

1

2 No text

3

1

FOREWORD

2 **1. General.** This section defines the terms and numeric indications used in this
3 document. This section also describes the ~~time reference used in the CDMA system and the
4 tolerances used throughout the document~~ general signaling architecture.

5 **2. Requirements for Mobile Station CDMA Operation.** This section describes the
6 requirements for CDMA-analog dual-mode mobile stations operating in the CDMA mode. A
7 mobile station complying with these requirements will be able to operate with CDMA base
8 stations complying with this document.

9 **3. Requirements for Base Station CDMA Operation.** This section describes the
10 requirements for CDMA base stations. A base station complying with these requirements
11 will be able to operate in the CDMA mode with mobile stations complying with this
12 document.

13 | Annex A. Reserved.

14 | Annex B. CDMA Call Flow Examples. This informative annex provides examples of simple
15 call flows in the CDMA system.

16 | Annex C. Reserved.

17 | **Annex D. CDMA Constants.** This normative annex contains tables that give specific
18 values for the constant identifiers found in Section 2 and Section 3.

19 | **Annex E. CDMA Retrievable and Settable Parameters.** This normative annex describes
20 the mobile station parameters that the base station can set and retrieve.

21 | **Annex F. Mobile Station Database.** This informative annex describes a database model
22 that can be used for dual-mode mobile stations complying with this document.

23 | **Annex G. Encryption Call Flows.** This informative annex provides examples of extended
24 encryption call flows in the CDMA system.

1 No text.

NOTES

1. Compatibility, as used in connection with cdma2000, is understood to mean: any cdma2000 mobile station is able to place and receive calls in cdma2000 and IS-95 systems. Conversely, any cdma2000 system is able to place and receive calls for CDMAcdma2000 and IS-95 mobile stations.
 2. The term “dual-mode mobile station” indicates a mobile station capable of both analog (FM) and spread spectrum (CDMA) operation.
 3. This compatibility specification is based upon spectrum allocations that have been defined by various governmental administrations.
 4. Each mobile station is assigned a single unique 32-bit binary serial number (ESN) that cannot be changed by the subscriber without rendering the mobile station inoperative (see 2.3.2).
 5. “Base station” refers to the functions performed in the fixed network. These functions typically distributed among cells, sectors, and mobile switching centers.
 6. This standard uses the following verbal forms: “Shall” and “shall not” identify requirements strictly to be followed in order to conform with the standard and from which no deviation is permitted. “Should” and “should not” indicate that one of several possibilities is recommended as particularly suitable, without mentioning or excluding others; that a certain course of action is preferred but not necessarily required; or that (in the negative form) a certain possibility or course of action is discouraged but not prohibited. “May” and “need not” indicate a course of action permissible within the limits of the standard. “Can” and “cannot” are used for statements of possibility and capability, whether material, physical, or causal.
 7. Footnotes appear at various points in this specification to elaborate and further clarify items discussed in the body of the specification.
 8. Unless indicated otherwise, this document presents numbers in decimal form. Binary numbers are distinguished in the text by the use of single quotation marks.
 9. The following operators define mathematical operations:
 - × indicates multiplication.
 - $\lfloor x \rfloor$ indicates the largest integer less than or equal to x: $\lfloor 1.1 \rfloor = 1$, $\lfloor 1.0 \rfloor = 1$.
 - $\lceil x \rceil$ indicates the smallest integer greater or equal to x: $\lceil 1.1 \rceil = 2$, $\lceil 2.0 \rceil = 2$.
 - $|x|$ indicates the absolute value of x: $|-17| = 17$, $|17| = 17$.
 - \oplus indicates exclusive OR (modulo-2 addition).
 - $\min(x, y)$ indicates the minimum of x and y.
 - $\max(x, y)$ indicates the maximum of x and y.

1 $x \bmod y$ indicates the remainder after dividing x by y : $x \bmod y = x - (y \times \lfloor x/y \rfloor)$.

- 2 10. While communication between Layer 3 and Layer 2 is specified, there is no
3 requirement to implement layering.

1

REFERENCES

2 The following standards contain provisions which, through reference in this text, constitute
3 provisions of this Standard. At the time of publication, the editions indicated were valid.
4 All standards are subject to revision, and parties to agreements based on this Standard are
5 encouraged to investigate the possibility of applying the most recent editions of the
6 standards indicated below.

7

1. Reserved.
2. C.S0002-A [v6.0](#), *Physical Layer Standard for cdma2000 Spread Spectrum Systems, February 2002*.
3. C.S0003-A [v6.0](#), *Medium Access Control (MAC) Standard for cdma2000 Spread Spectrum Systems, February 2002*.
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23. Interface Specification for Common Cryptographic Algorithms, Rev C, 1997. Contact the Telecommunications Industry Association, Arlington, VA.
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31. C.S0008-0, *Multi-Carrier Specification for Spread Spectrum System on GSM MAP (MC-MAP) – Lower Layers Air Interface*, [June 2000](#).
32. C.S0007-0, *Direct Spread Specification for Spread Spectrum System on ANSI-41 (DS-41) – Upper Layers Air Interface*, [June 2000](#).
33. [Enhanced Cryptographic Algorithms, TR45.AHAG 2001.](#)
34. [ANSI T1.625, Integrated Services Digital Network \(ISDN\) – Calling Line Identification Presentation and Restriction Supplementary Services.](#)
35. [CCITT X.213, Information Technology – Open Systems Interconnection – Network Service Definition, November 1995.](#)

36. [CCITT X.25, Interface between Data Terminal Equipment \(DTE\) and Data Circuit-Terminating Equipment \(DCE\) for terminals operating in the packet mode and connected to public data networks by dedicated circuit, October 1996.](#)

1

1 **1. GENERAL**

2 This section defines the terms and numeric indications used in this document. This section
 3 also describes the time reference used in the CDMA system and the tolerances used
 4 throughout the documentthe general signaling architecture.

5 **1.1 Terms and Numeric Information**

6 **1.1.1 Terms**

7 **Abbreviated Alert.** An abbreviated alert is used to remind the mobile station user that
 8 previously selected alternative routing features are still active.

9 **AC.** See Authentication Center.

10 **Access Attempt.** The entire process of sending one message and receiving (or failing to
 11 receive) an acknowledgment for that message, consisting of one or more access sub-
 12 attempts. See also Access Probe, Access Probe Sequence, and Access Sub-attempt.

13 **Access Channel.** A Reverse CDMA Channel used by mobile stations for communicating to
 14 the base station. The Access Channel is used for short signaling message exchanges such
 15 as call originations, responses to pages, and registrations. The Access Channel is a slotted
 16 random access channel.

17 **Access Channel Message.** The information part of an access probe consisting of the
 18 message body, length field, and CRC.

19 **Access Channel Message Capsule.** An Access Channel message plus the padding.

20 **Access Channel Preamble.** The preamble of an access probe consisting of a sequence of
 21 all-zero frames that are sent at the 4800 bps rate.

22 **Access Channel Request Message.** An Access Channel message that is autonomously
 23 generated by the mobile station. See also Access Channel Response Message.

24 **Access Channel Response Message.** A message on the Access Channel generated to reply
 25 to a message received from the base station.

26 **Access Channel Slot.** The assigned time interval for an access probe. An Access Channel
 27 slot consists of an integer number of frames. The transmission of an access probe is
 28 performed within the boundaries of an Access Channel slot.

29 **Access Entry Handoff.** The act of transferring reception of the Paging Channel from one
 30 base station to another, when the mobile station is transitioning from the *Mobile Station Idle*
 31 *State* to the *System Access State*.

32 **Access Handoff.** The act of transferring reception of the Paging Channel from one base
 33 station to another, when the mobile station is in the *System Access State* after an Access
 34 Attempt.

35 **Access Overload Class.** See Overload Class.

36 **Access Probe.** One Access Channel transmission consisting of a preamble and a message.
 37 The transmission is an integer number of frames in length and transmits one Access

1 Channel message. See also Access Probe Sequence, Access Sub-attempt, and Access
2 Attempt.

3 **Access Probe Handoff.** A handoff that occurs while the mobile station is performing an
4 Access Attempt in the *System Access State*.

5 **Access Probe Sequence.** A sequence of one or more access probes on the Access Channel.
6 Other than the reported pilot information, the same Access Channel message content is
7 transmitted in every access probe of an access sub-attempt. See also Access Probe, Access
8 Sub-attempt, and Access Attempt.

9 **Access Sub-attempt.** A sequence of one or more access probe sequences on the Access
10 Channel transmitted to one pilot, containing the same message content other than the
11 reported pilot information. See also Access Probe, Access Probe Sequence, and Access
12 Attempt.

13 **Acknowledgment.** A Layer 2 response by the mobile station or the base station confirming
14 that a signaling message was received correctly.

15 **Action Time.** The time at which the action implied by a message should take effect.

16 **Active Set.** The set of pilots associated with the CDMA Channels containing Forward
17 Traffic Channels assigned to a particular mobile station.

18 **Active User Zone.** A user zone in which the mobile station makes its presence known via
19 an explicit registration in order to activate tiered service features. See also CDMA Tiered
20 Services, User Zone, and Passive User Zone.

21 **Aging.** A mechanism through which the mobile station maintains in its Neighbor Set the
22 pilots that have been recently sent to it from the base station and the pilots whose handoff
23 drop timers have recently expired.

24 **A-key.** A secret, 64-bit pattern stored in the mobile station and HLR/AC. It is used to
25 generate/update the mobile station's Shared Secret Data.

26 **Assured Mode.** Mode of delivery that guarantees that a PDU will be delivered to the peer.
27 A PDU sent in assured mode is retransmitted by the LAC sublayer, up to a maximum
28 number of retransmissions, until the LAC entity at the sender receives an acknowledgement
29 for the PDU. See also Confirmation of Delivery.

30 **Authentication.** A procedure used by a base station to validate a mobile station's identity.

31 **Authentication Center (AC).** An entity that manages the authentication information
32 related to the mobile station.

33 **Authentication Response (AUTHR).** An 18-bit output of the authentication algorithm. It
34 is used, for example, to validate mobile station registrations, originations and terminations.

35 **Autonomous Registration.** A method of registration in which the mobile station registers
36 without an explicit command from the base station.

37 **Auxiliary Pilot Channel.** A non-data-bearing, direct-sequence spread spectrum signal
38 optionally transmitted by a CDMA base station.

Auxiliary Transmit Diversity Pilot Channel. A pilot channel, counterpart to an Auxiliary Pilot Channel, that is transmitted by a CDMA base station from the non-primary antenna when orthogonal transmit diversity is employed.

Bad Frames. Frames classified as insufficient frame quality or as 9600 bps primary traffic only, with bit errors. See also Good Frames.

Band Class. A set of CDMA frequency assignments and a numbering scheme for these channels. See also CDMA Frequency Assignment.

Base Station. A fixed station used for communicating with mobile stations. Depending upon the context, the term base station may refer to a cell, a sector within a cell, an MSC, or other part of the [cellular-wireless](#) system. See also MSC.

Base Station Authentication Response (AUTHBS). An 18-bit pattern generated by the authentication algorithm. AUTHBS is used to confirm the validity of base station orders to update the Shared Secret Data.

Base Station Random Variable (RANDBS). A 32-bit random number generated by the mobile station for authenticating base station orders to update the Shared Secret Data.

Blank-and-Burst. The preemption of an entire Traffic Channel frame's primary traffic by signaling traffic or secondary traffic. Blank-and-burst is performed on a frame-by-frame basis.

BLOB. Block of Bits.

bps. Bits per second.

Broadcast Control Channel. A code channel in a Forward CDMA Channel used for transmission of control information [or broadcast messages](#) from a base station to a mobile station.

Broadcast Control Channel Number (BCN). [A number that identifies the Broadcast Control Channel.](#) BCN number 1 corresponds to the Primary Broadcast Control Channel. BCN numbers 2 through 8 correspond to other Broadcast Control Channels [\(if any\)](#).

Broadcast User Zone. A user zone that is identified to the mobile station by means of broadcast messages. It corresponds to the RF coverage area of a particular set of cells and sectors. See also CDMA Tiered Services and Mobile-Specific User Zone.

Call Disconnect. The process that releases the resources handling a particular call. The disconnect process begins either when the mobile station user indicates the end of the call by generating an on-hook condition or other call-release mechanism, or when the base station initiates a release.

Call History Parameter (COUNT). A modulo-64 event counter maintained by the mobile station and Authentication Center that is used for clone detection.

Candidate Frequency. The frequency, either analog or CDMA, for which the base station specifies a search set, using a *Candidate Frequency Search Request Message*.

Candidate Set. The set of pilots that have been received with sufficient strength by the mobile station to be successfully demodulated, but have not been placed in the Active Set by the base station. See also Active Set, Neighbor Set, and Remaining Set.

CDMA. See Code Division Multiple Access.

CDMA Candidate Frequency. The Candidate Frequency specified for a search of CDMA pilots.

CDMA Channel. The set of channels transmitted between the base station and the mobile stations within a given CDMA Frequency Assignment. See also Forward CDMA Channel and Reverse CDMA Channel.

CDMA Channel Number. An 11-bit number that identifies a CDMA Frequency Assignment.

CDMA Frequency Assignment. A 1.23 or 3.69 MHz segment of spectrum. The center of a CDMA frequency assignment is given by a CDMA Channel Number.

CDMA Preferred Set. The set of CDMA channel numbers in a CDMA system corresponding to Frequency Assignments that a mobile station will normally search to acquire a CDMA Pilot Channel. For CDMA cellular systems, the primary and secondary channels comprise the CDMA Preferred Set.

CDMA Tiered Services. System features and services that are based on location, potentially including private networks. User zones establish the availability of services. See also User Zone, Broadcast User Zone, Mobile-Specific User Zone, Active User Zone, and Passive User Zone.

Center SR3 Frequency. The Spreading Rate 3 frequency that has the center frequency assignment.

Chip. See PN Chip.

Code Channel. A subchannel of a Forward CDMA Channel or Reverse CDMA Channel. Each subchannel uses an orthogonal Walsh function or quasi-orthogonal function.

Code Division Multiple Access (CDMA). A technique for spread-spectrum multiple-access digital communications that creates channels through the use of unique code sequences.

Code Symbol. The output of an error-correcting encoder. Information bits are input to the encoder and code symbols are output from the encoder. See Convolutional Code.

Configuration Change Indicator. A one-bit datum, sent on the Quick Paging Channel. Appearance of the Configuration Change Indicator in the Quick Paging Channel serves to alert a slotted mode mobile station, operating in the idle state, that, after performing an idle handoff, it should monitor the Paging Channel, the Forward Common Control Channel, or the Primary Broadcast Control Channel in order to determine if it should update its stored parameters.

Confirmation of Delivery. A notification sent by the LAC sublayer to Layer 3 at the sender, when the LAC entity at the sender receives the acknowledgment for a specific PDU sent in assured mode.

Convolutional Code. A type of error-correcting code. A code symbol can be considered as modulo 2 the convolution of the input data sequence with the impulse response of a generator function.

CRC. See Cyclic Redundancy Code.

Cyclic Redundancy Code (CRC). A class of linear error detecting codes that generate parity check bits by finding the remainder of a polynomial division. See also Frame Quality Indicator.

dBc. The ratio (in dB) of the sideband power of a signal, measured in a given bandwidth at a given frequency offset from the center frequency of the same signal, to the total inband power of the signal.

dBm. A measure of power expressed in terms of its ratio (in dB) to one milliwatt.

dBm/Hz. A measure of power spectral density. The ratio, dBm/Hz, is the power in one Hertz of bandwidth, where power is expressed in units of dBm.

dBW. A measure of power expressed in terms of its ratio (in dB) to one Watt.

Dedicated Control Channel. A portion of a Traffic Channel (Forward or Reverse) that carries a combination of user data, signaling, and power control information.

Deinterleaving. The process of unpermuting the symbols that were permuted by the interleaver. Deinterleaving is performed on received symbols prior to decoding.

Discontinuous Transmission (DTX). A mode of operation in which a base station or a mobile station switches its transmitter on and off on a particular code channel autonomously. For the case of DTX operation on the Forward Dedicated Control Channel, the Forward Power Control Subchannel is still transmitted.

Distance-Based Registration. An autonomous registration method in which the mobile station registers whenever it enters a cell whose distance from the cell in which the mobile station last registered exceeds a given threshold.

DTMF. See Dual-Tone Multifrequency.

Dual-Tone Multifrequency (DTMF). Signaling by the simultaneous transmission of two tones, one from a group of low frequencies and another from a group of high frequencies. Each group of frequencies consists of four frequencies.

E_b. A measure of the energy in a signal, at some point in a communication system, per information bit conveyed by that signal, or an average value of such energies. Its relevance to system performance is most often expressed by its ratio to additive noise and interference, such as in E_b/N₀ or E_b/I₀. Such ratios are dimensionless, and are usually expressed in dB units.

E_c/I_o. A notation used to represent a dimensionless ratio of the average power of some code-distinguished CDMA signal channel, typically a pilot, to the total power comprised of signal plus interference, within the signal bandwidth. It is usually expressed in dB units.

Effective Radiated Power (ERP). The product of the power supplied to the antenna and its gain relative to a half-wave dipole in a given direction.

- EIRP.** See Equivalent Isotropic Radiated Power.
- Electronic Serial Number (ESN).** A 32-bit number assigned by the mobile station manufacturer, uniquely identifying the mobile station equipment.
- Encoder Tail Bits.** A fixed sequence of bits added to the end of a block of data to reset the convolutional encoder to a known state.
- Enhanced Access Channel.** A reverse channel used by mobile station for communicating to the base station. The Enhanced Access Channel operates in the Basic Access Mode, and Reservation Access Mode. It is used for transmission of short messages, such as signaling, MAC messages, response to pages, and call originations. It can also be used to transmit moderate-sized data packets.
- Enhanced Access Channel Preamble.** A non-data bearing portion of the Enhanced Access probe sent by the mobile station to assist the base station in initial acquisition and channel estimation.
- Enhanced Access Channel Slot.** The assigned time interval for an enhanced access probe. An Enhanced Access Channel slot consists of an integer number of Enhanced Access Channel frames. The transmission of an enhanced access probe is performed within the boundaries of an Enhanced Access Channel slot.
- Enhanced Access Data.** The data transmitted while in the Basic Access Mode on the Enhanced Access Channel or while in the Reservation Access Mode on a Reverse Common Control Channel.
- Enhanced Access Header.** A frame containing access origination information transmitted immediately after the Enhanced Access Channel Preamble while in the Reservation Access Mode.
- Enhanced Access Probe.** One Enhanced Access Channel transmission consisting of an Enhanced Access Channel preamble, optionally an Enhanced Access header, and optionally Enhanced Access data. See also Enhanced Access Probe Sequence.
- Enhanced Access Probe Sequence.** A sequence of one or more Enhanced Access probes on the Enhanced Access Channel. See also Enhanced Access Probe.
- Equivalent Isotropically Radiated Power (EIRP).** The product of the power supplied to the antenna and the antenna gain in a direction relative to an isotropic antenna.
- Erasure Indicator Bit.** See [2].
- ERP.** See Effective Radiated Power.
- ESN.** See Electronic Serial Number.
- f-csch.** Forward common signaling logical channel.
- f-dsch.** Forward dedicated signaling logical channel.
- Fade Timer.** A timer kept by the mobile station as a measure of Forward Traffic Channel continuity. If the fade timer expires, the mobile station drops the call.
- Flash.** An indication sent on the Reverse CDMA Channel indicating that the user directed the mobile station to invoke special processing.

1 Foreign NID Roamer. A mobile station operating in the same system (SID) but in a
 2 different network (NID) from the one in which service was subscribed. See also Foreign SID
 3 Roamer and Roamer.

4 Foreign SID Roamer. A mobile station operating in a system (SID) other than the one from
 5 which service was subscribed. See also Foreign NID Roamer and Roamer.

6 Forward CDMA Channel. A CDMA Channel from a base station to mobile stations. The
 7 Forward CDMA Channel contains one or more code channels that are transmitted on a
 8 CDMA Frequency Assignment using a particular pilot PN offset. The code channels are
 9 associated with the Pilot Channel, Sync Channel, Paging Channels, Broadcast Control
 10 Channel, Forward Common Control Channels, and Traffic Channels. The Forward CDMA
 11 Channel always carries a Pilot Channel and may also carry up to one Sync Channel, up to
 12 seven Paging Channels, one-up to eight Broadcast Control Channels, up to seven Forward
 13 Common Control Channels and up to the maximum number of channels allowed for the
 14 assigned Radio Configuration minus one Traffic Channels, as long as the total number of
 15 channels, including the Pilot Channel, is no greater than the maximum number of channels
 16 allowed for the assigned Radio Configuration (see [2] section 3.1.3.1.13).

17 Forward Common Control Channel. A control channel used for the transmission of digital
 18 control information from a base station to one or more mobile stations.

19 Forward Dedicated Control Channel. A Dedicated Control Channel that is transmitted on
 20 the Forward CDMA Channel.

21 Forward Fundamental Channel. A Fundamental Channel that is transmitted on the
 22 Forward CDMA Channel.

23 Forward Pilot Channel. A non-data-bearing direct-sequence spread spectrum signal
 24 transmitted continuously by each CDMA base station. The Forward Pilot Channel allows a
 25 mobile station to acquire the timing of the Forward CDMA Channel, provides a phase
 26 reference for coherent demodulation, and provides a means for signal strength comparisons
 27 between base stations for determining when to handoff. Different base stations are
 28 identified by different pilot PN sequence time phases. See also Pilot PN Sequence, Pilot PN
 29 Sequence Offset.

30 Forward Supplemental Channel. A Supplemental Channel that is transmitted on the
 31 Forward CDMA Channel.

32 Forward Supplemental Code Channel. A Supplemental Code Channel that is transmitted
 33 on the Forward CDMA Channel.

34 Forward Traffic Channel. One or more code channels used to transport user and
 35 signaling traffic from the base station to the mobile station. See Forward Fundamental
 36 Code—Channel, Forward Dedicated Control Channel, Forward Fundamental Channel,
 37 Forward Supplemental, and Forward Supplemental Code Channel.

38 Forward Transmit Diversity Pilot Channel. A pilot channel transmitted by a CDMA base
 39 station from the non-primary antenna when orthogonal transmit diversity is employed.

40 Frame. A basic timing interval in the system. For the Access Channel, Paging Channel,
 41 Broadcast Control Channel, Forward Supplemental Code Channel, and Reverse

1 Supplemental Code Channel, a frame is 20 ms long. For the Forward Supplemental
 2 Channel and Reverse Supplemental channel, a frame is 20, 40, or 80 ms long. For the
 3 Sync Channel, a frame is 26.666... ms long. For the Forward Fundamental Channel,
 4 Forward Dedicated Control Channel, Reverse Fundamental Channel, and Reverse Dedicated
 5 Control Channel, a frame is 5 or 20 ms long. For the Enhance Access Channel, the
 6 Forward Common Control Channel, and the Reverse Common Control Channel, a frame is
 7 5, 10 or 20 ms long.

8 **Frame Category.** A classification of a received Traffic Channel frame based upon
 9 transmission data rate, the frame contents (primary traffic, secondary traffic, or signaling
 10 traffic), and whether there are detected errors in the frame.

11 **Frame Offset.** A time skewing of Traffic Channel frames from System Time in integer
 12 multiples of 1.25 ms. The maximum frame offset is 18.75 ms.

13 **Frame Quality Indicator.** See [2].

14 **Full TMSI.** The combination of TMSI_ZONE and TMSI_CODE. The full TMSI is a globally
 15 unique address for the mobile station.

16 **Fundamental Channel.** A portion of a Traffic Channel that can carry a combination of
 17 primary data, secondary data, signaling, and power control information.

18 **Gating Rate Set.** This specifies the set of supported reverse pilot gating rates. The base
 19 station and the mobile station may support one or more gating rates.

20 **GHz.** Gigahertz (10^9 Hertz).

21 **Global Positioning System (GPS).** A US government satellite system that provides location
 22 and time information to users. See Navstar GPS Space Segment / Navigation User
 23 Interfaces ICD-GPS-200 for specifications.

24 **Good Frames.** Frames not classified as bad frames. See also Bad Frames.

25 **GPS.** See Global Positioning System.

26 **Handoff.** The act of transferring communication with a mobile station from one base
 27 station to another.

28 **Hard Handoff.** A handoff characterized by a temporary disconnection of the Traffic
 29 Channel. Hard handoffs occur when the mobile station is transferred between disjoint
 30 Active Sets, when the CDMA Frequency Assignment changes, when the frame offset
 31 changes, or when the mobile station is directed from a CDMA Traffic Channel to an analog
 32 voice channel. See also Soft Handoff.

33 **Hash Function.** A function used by the mobile station to select one out of N available
 34 resources. The hash function distributes the available resources uniformly among a
 35 random sample of mobile stations.

36 **Highest SR3 Frequency.** The SR3 frequency that has the highest frequency assignment.

37 **HLR.** See Home Location Register.

38 **Home Location Register (HLR).** The location register to which a MIN/IMSI is assigned for
 39 record purposes such as subscriber information.

1 Home System. The [wirelessellular or PCS](#) system in which the mobile station subscribes
2 for service.

3 Hopping Pilot Beacon. A pilot beacon that changes CDMA Frequency periodically to
4 simulate multiple base stations operating on different frequencies. The transmission of the
5 hopping pilot beacon is discontinuous on any CDMA Channel.

6 Idle Handoff. The act of transferring reception of the Paging Channel, Broadcast Control
7 Channel or the Forward Common Control Channel from one base station to another, when
8 the mobile station is in the *Mobile Station Idle State*.

9 Implicit Registration. A registration achieved by a successful transmission of an
10 origination or page response on the r-csch.

11 IMSI. See International Mobile Station Identity.

12 IMSI_M. MIN-based IMSI using the lower 10 digits to store the MIN.

13 IMSI_O. Operational value of IMSI used by the mobile station for operation with the base
14 station.

15 IMSI_T. True IMSI not associated with MIN. This could be 15 digits or fewer.

16 Interleaving. The process of permuting a sequence of symbols.

17 International Mobile Station Identity (IMSI). A method of identifying stations in the land
18 mobile service as specified in [18].

19 kHz. Kilohertz (10^3 Hertz).

20 ksps. Kilo-symbols per second (10^3 symbols per second).

21 LAC. See Link Access Control.

22 Layering. A method of organization for communication protocols in which the transmitted
23 or received information is transferred in pipeline fashion, within each station, in well-
24 defined encapsulated data units between otherwise decoupled processing entities (“layers”).
25 A layer is defined in terms of its communication protocol to a peer layer in another entity
26 and the services it offers to the next higher layer in its own entity.

27 Layer 1. Layer 1 provides for the transmission and reception of radio signals between the
28 base station and the mobile station. Also see Physical Layer.

29 Layer 2. Layer 2 provides for the correct transmission and reception of signaling messages,
30 including partial duplicate detection. Layer 2 makes use of the services provided by Layer
31 1. See also Layering and Layer 3.

32 Layer 3. Layer 3 provides the control messaging for the [wirelessellular or PCS](#) telephone
33 system. Layer 3 originates and terminates signaling messages according to the semantics
34 and timing of the communication protocol between the base station and the mobile station.
35 Layer 3 makes use of the services provided by Layer 2. See also Layering and Layer 2.

36 Link Access Control. See LAC. The LAC Sublayer is the upper sublayer of Layer 2. It
37 implements a data link protocol that provides for the correct transport and delivery of
38 signaling messages generated by Layer 3. The LAC Sublayer makes use of the services

1 provided by the Lower Layers (Layer 1 and the MAC Sublayer).

2 **Local Control.** An optional mobile station feature used to perform manufacturer-specific
3 functions.

4 **Logical Channel.** A communication path between the mobile station and the base station,
5 described in terms of the intended use of, and access to, the transferred data, and direction
6 of transfer. A logical channel can be “mapped” to and from one or more physical channels.

7 **Logical-to-physical Mapping.** The technique for forming associations between logical and
8 physical channels.

9 **Long Code.** A PN sequence with period $2^{42} - 1$ that is used for scrambling on the Forward
10 CDMA Channel and spreading on the Reverse CDMA Channel. The long code uniquely
11 identifies a mobile station on both the Reverse Traffic Channel and the Forward Traffic
12 Channel. The long code provides limited privacy. The long code also separates multiple
13 Access Channels and Enhanced Access Channels on the same CDMA Channel. See also
14 Public Long Code and Private Long Code.

15 **Long Code Mask.** A 42-bit binary number that creates the unique identity of the long code.
16 See also Public Long Code, Private Long Code, Public Long Code Mask, and Private Long
17 Code Mask.

18 **Lowest SR3 Frequency.** The SR3 frequency that has the lowest frequency assignment.

19 **LSB.** Least significant bit.

20 **LTU.** Logical Transmission Unit. One or more Type 3 MuxPDUs with a 16-bit CRC.

21 **MAC.** See Medium Access Control.

22 **Maximal Length Sequence (m-Sequence).** A binary sequence of period $2^n - 1$, n being a
23 positive integer, with no internal periodicities. A maximal length sequence can be
24 generated by a tapped n-bit shift register with linear feedback.

25 **MCC.** See Mobile Country Code.

26 **Mcps.** Megachips per second (10^6 chips per second).

27 **MCSB.** See Message Control and Status Block.

28 **Mean Input Power.** The total received calorimetric power measured in a specified
29 bandwidth at the antenna connector, including all internal and external signal and noise
30 sources.

31 **Mean Output Power.** The total transmitted calorimetric power measured in a specified
32 bandwidth at the antenna connector when the transmitter is active.

33 **Medium Access Control.** See MAC. The MAC Sublayer is the lower sublayer of Layer 2. It
34 implements the medium access protocol and is responsible for transport of LAC protocol
35 data units using the services provided by Layer 1.

36 **Message.** A data structure that conveys control information or application information. A
37 message consists of a length field (MSG_LENGTH), a message body (the part conveying the
38 information), and a CRC.

Message Body. The part of the message contained between the length field (MSG_LENGTH) and the CRC field.

Message Capsule. A sequence of bits comprising a single message and padding. The padding always follows the message and may be of zero length.

Message Control and Status Block. In this document, a parameter block representing the PCI being transferred between Layer 3 and Layer 2.

Message CRC. The CRC check associated with a message. See also Cyclic Redundancy Code.

Message Field. A basic named element in a message. A message field may consist of zero or more bits.

Message Record. An entry in a message consisting of one or more fields that repeats in the message.

MHz. Megahertz (10^6 Hertz).

MIN. See Mobile Identification Number.

MNC. See Mobile Network Code.

Mobile Country Code (MCC). A part of the E.212 IMSI identifying the home country. See [18].

Mobile Directory Number. A dialable directory number that is not necessarily the same as the mobile station's air interface identification, i.e., MIN, IMSI_M or IMSI_T.

Mobile Identification Number (MIN). The 34-bit number that is a digital representation of the 10-digit number assigned to a mobile station.

Mobile Network Code (MNC). A part of the E.212 IMSI identifying the home network within the home country. See [18].

Mobile Protocol Capability Indicator (MPCI). A 2-bit field used to indicate the mobile station's capabilities.

Mobile-Specific User Zone. A user zone that is identified by the mobile station. The mobile station may consider parameters such as the identity of the serving system, cell, and sector, and the geographic location of that station in making the determination. See also CDMA Tiered Services, User Zone, Broadcast User Zone, Active User Zone, and Passive User Zone.

Mobile Station. A station in the Public [WirelessCellular](#) Radio Telecommunications Service intended to be used while in motion or during halts at unspecified points. Mobile stations include portable units (e.g., hand-held personal units) and units installed in vehicles.

Mobile Station Class. A classification of mobile stations based on characteristics such as slotted operation and transmission power. See Table 2.3.3-1 of [12] and Table 2.3.3-1 of this document.

Mobile Station Identification Number (MSIN). A part of the E.212 IMSI identifying the mobile station within its home network. See [18].

- 1 **Mobile Station Originated Call.** A call originating from a mobile station.
- 2 **Mobile Station Terminated Call.** A call received by a mobile station (not to be confused
3 with a disconnect or call release).
- 4 **ms.** Millisecond (10^{-3} second).
- 5 **MSB.** Most significant bit.
- 6 **MSC.** See Mobile Switching Center.
- 7 **MSIN.** See Mobile Station Identification Number.
- 8 **Multiplex Option.** The ability of the multiplex sublayer and lower layers to be tailored to
9 provide special capabilities. A multiplex option defines such characteristics as the frame
10 format, the maximum number of Supplemental Code Channels supported, and the rate
11 decision rules. See also Multiplex Sublayer.
- 12 **Multiplex Sublayer.** One of the conceptual layers of the system that multiplexes and
13 demultiplexes primary traffic, secondary traffic, and signaling traffic.
- 14 **NAM.** See Number Assignment Module.
- 15 **National Mobile Station Identity (NMSI).** A part of the E.212 IMSI identifying the mobile
16 station within its home country. The NMSI consists of the MNC and the MSIN. See [18].
- 17 **NDSS.** See Network Directed System Selection.
- 18 **Neighbor Set.** The set of pilots associated with the CDMA Channels that are probable
19 candidates for handoff. Normally, the Neighbor Set consists of the pilots associated with
20 CDMA Channels that cover geographical areas near the mobile station. See also Active Set,
21 Candidate Set, Remaining Set, and Private Neighbor Set.
- 22 **Network.** A network is a subset of a [wireless cellular or PCS](#) system, such as an area-wide
23 cellular network, a private group of base stations, or a group of base stations set up to
24 handle a special requirement. A network can be as small or as large as needed, as long as
25 it is fully contained within a system. See also System.
- 26 **Network Directed System Selection (NDSS).** A feature that allows the mobile station to
27 automatically register with a preferred system while roaming, or to be automatically
28 directed by a service provider, typically the home service provider, to a suggested system,
29 regardless of the frequency band class, cellular band, or PCS frequency block.
- 30 **Network Identification (NID).** A number that uniquely identifies a network within a
31 [wireless cellular or PCS](#) system. See also System Identification.
- 32 **NID.** See Network Identification.
- 33 **NMSI.** See National Mobile Station Identity.
- 34 **Non-Autonomous Registration.** A registration method in which the base station initiates
35 registration. See also Autonomous Registration.
- 36 **Non-Slotted Mode.** An operation mode of the mobile station in which the mobile station
37 continuously monitors the Paging Channel, or the Forward Common Control Channel/
38 Broadcast Control Channel.

1 ns. Nanosecond (10^{-9} second).

2 NULL. Any value that is not in the specified range of a field.

3 Null Traffic Channel Data. One or more frames of a specified data sequence sent at the
4 lowest agreed-upon rate of the negotiated radio configuration. Null Traffic Channel data
5 may be sent when there is no primary, secondary, or signaling traffic available. Null Traffic
6 Channel data serves to maintain the connectivity between the mobile station and the base
7 station.

8 Number Assignment Module (NAM). A set of MIN/IMSI-related parameters stored in the
9 mobile station.

10 Numeric Information. Numeric information consists of parameters that appear as
11 numeric fields in messages exchanged by the base station and the mobile station and
12 information used to describe the operation of the mobile station.

13 Optional Field. A field defined within a message structure that is optionally transmitted to
14 the message recipient.

15 Order. A type of message that contains control codes for either the mobile station or the
16 base station.

17 Ordered Registration. A registration method in which the base station orders the mobile
18 station to send registration related parameters.

19 Orthogonal Transmit Diversity (OTD). An optional method of transmission of the
20 Forward CDMA Channel that uses two antennas, each transmitting a fraction of the code
21 symbols. It can be used to enhance performance in the presence of multipath fading radio
22 propagation.

23 OTD. See Orthogonal Transmit Diversity

24 Overhead Message. A message sent by the base station on the Paging Channel or the
25 Primary Broadcast Control Channel to communicate base-station-specific and system-wide
26 information to mobile stations.

27 Overload Class (OLC). The means used to control system access by mobile stations,
28 typically in emergency or other overloaded conditions. Mobile stations are assigned one (or
29 more) of sixteen overload classes. Access to the CDMA system can then be controlled on a
30 per class basis by persistence values transmitted by the base station.

31 PACA. Priority Access and Channel Assignment. See PACA Call.

32 PACA Call. A priority mobile station originated call for which no traffic channel or voice
33 channel was immediately available, and which has been queued for a priority access
34 channel assignment.

35 Packet. The unit of information exchanged between the service option applications of the
36 base station and the mobile station.

37 Padding. A sequence of bits used to fill from the end of a message to the end of a message
38 capsule, typically to the end of the frame or half frame. All bits in the padding are '0'.

39 Paging. The act of seeking a mobile station when a call has been placed to that mobile

1 station.

2 **Paging Channel.** A code channel in a Forward CDMA Channel used for transmission of
3 control information and pages from a base station to a mobile station.

4 **Paging Channel Slot.** An 80 ms interval on the Paging Channel. Mobile stations operating
5 in the slotted mode are assigned specific slots in which they monitor messages from the
6 base station.

7 **Paging Indicator.** A one-bit datum, sent on the Quick Paging Channel. Quick paging
8 indicators are associated with mobile stations, in pairs, via a hashing algorithm.
9 Appearance of both of its indicators in its assigned Quick Paging Channel slot serves to
10 alert a slotted mode mobile station, operating in the idle state, that it should monitor the
11 Paging Channel or the Forward Common Control Channel starting in the next slot. See
12 also Quick Paging Channel.

13 **Parameter-Change Registration.** A registration method in which the mobile station
14 registers when certain of its stored parameters change.

15 **Parity Check Bits.** Bits added to a sequence of information bits to provide error detection,
16 correction, or both.

17 **Passive User Zone.** A user zone in which the implicit registration that takes place at call
18 setup is sufficient to trigger a change in tiered service features. See also CDMA Tiered
19 Services, User Zone, and Active User Zone.

20 **PCI.** See Protocol Control Information.

21 **PCS.** See Personal Communications Services.

22 **PCSC.** See Personal Communications Switching Center.

23 **PCS System.** See Personal Communications Services System.

24 **PDU.** See Protocol Data Unit.

25 **Personal Communications Services System.** A configuration of equipment that provides
26 PCS radiotelephone services.

27 **Personal Communications Services (PCS).** A family of mobile and portable radio
28 communications services for individuals and businesses that may be integrated with a
29 variety of competing networks. Broadcasting is prohibited and fixed operations are to be
30 ancillary to mobile operations.

31 **Personal Communications Switching Center (PCSC).** See Mobile Switching Center
32 (MSC).

33 **Physical Channel.** A communication path between stations, described in terms of the RF
34 characteristics such as coding, power control policies, etc.

35 **Physical Layer.** The part of the communication protocol between the mobile station and
36 the base station that is responsible for the transmission and reception of data. The
37 physical layer in the transmitting station is presented a frame by the multiplex sublayer
38 and transforms it into an over-the-air waveform. The physical layer in the receiving station

1 transforms the waveform back into a frame and presents it to the multiplex sublayer above
 2 it.

3 **Pilot Beacon.** A transmit-only base station that broadcasts a Pilot Channel, a Sync
 4 Channel, optionally a Paging Channel or a Primary Broadcast Control Channel, but no
 5 Forward Common Control Channels and Forward Traffic Channels. The mobile station
 6 measures the pilot beacon to assist in CDMA hard handoffs and inter-frequency idle-mode
 7 handoffs.

8 **Pilot Channel.** A non-data-bearing signal transmitted by a CDMA station. See Forward
 9 Pilot Channel, Transmit Diversity Pilot Channel, Auxiliary Pilot Channel, Auxiliary Transmit
 10 Diversity Pilot Channel, and Reverse Pilot Channel.

11 **Pilot PN Chip.** One bit, or bit pair, of a pilot PN sequence, or the time interval
 12 corresponding thereto.

13 **Pilot PN Sequence.** A pair of modified maximal length PN sequences used to spread the
 14 quadrature components of a CDMA Channel.

15 **Pilot PN Sequence Offset.** The time offset of a Forward Pilot Channel from CDMA System
 16 time, as transmitted by the base station, expressed modulo the pilot period.

17 **Pilot PN Sequence Offset Index.** The pilot PN sequence offset in units of 64 PN chips of a
 18 Forward Pilot Channel, relative to the zero offset pilot PN sequence.

19 **Pilot Strength.** The ratio of pilot power to total power in the signal bandwidth of a CDMA
 20 Forward or Reverse Channel. See also E_c/I_0 .

21 **PN.** Pseudonoise.

22 **PN Chip.** One bit in a PN sequence, or the time duration of such a bit. It corresponds to
 23 the smallest modulation interval in a CDMA system.

24 **PN Sequence.** Pseudonoise sequence. A deterministic, periodic binary sequence having
 25 limited statistical similarity to a Bernoulli (coin-tossing).

26 **Power Control Bit.** A bit sent on the Forward Power Control Subchannel or Reverse Power
 27 Control Subchannel to signal the mobile station or base station to increase or decrease its
 28 transmit power.

29 **Power Control Group.** A 1.25 ms interval on the Forward Traffic Channel and the Reverse
 30 Traffic Channel. See also Power Control Bit.

31 **Power-Down Registration.** An autonomous registration method in which the mobile
 32 station registers on power-down.

33 **Power Up Function.** A method by which the mobile station increases its output power to
 34 support location services.

35 **Power-Up Registration.** An autonomous registration method in which the mobile station
 36 registers on power-up.

37 **PPM.** Parts per million.

38 **Preamble.** See Access Channel Preamble and Traffic Channel Preamble.

1 **Primary CDMA Channel.** A pre-assigned channel in a CDMA Cellular System used by the
 2 mobile station for initial acquisition. See also Secondary CDMA Channel.

3 **Primary Paging Channel (CDMA).** The default code channel (code channel 1) assigned for
 4 paging on a CDMA Channel.

5 **Primary Pilot.** One of the three pilots on the Spreading Rate 3 Forward Channels. The
 6 primary pilot may be on any one of the SR3 frequencies and may have a higher
 7 transmission power comparing to the pilots on the other two SR3 frequencies.

8 **Primary Traffic.** The main traffic stream carried between the mobile station and the base
 9 station on the Traffic Channel. See also Secondary Traffic and Signaling Traffic.

10 **Primitive.** An atomic, well-defined method of transferring data and control information
 11 between two adjacent layers and sublayers. Conventionally represented as a function
 12 invocation with the data and/or control information as parameters.

13 **Private Long Code.** The long code characterized by the private long code mask. See also
 14 Long Code.

15 **Private Long Code Mask.** The long code mask used to form the private long code. See also
 16 Public Long Code Mask and Long Code.

17 **Private Neighbor Set.** The set of pilots associated with the private system base stations
 18 that are probable candidates for idle handoff. See also Active Set, Neighbor Set, Remaining
 19 Set, and CDMA Tiered Services.

20 **Protocol Control Information (PCI).** Data passed between adjacent layers in the protocol
 21 stack, together with the SDU, to assist a layer to properly encapsulate/decapsulate the
 22 SDU. Examples of PCI in this document are the MCSB and the PCSB.

23 **Protocol Data Unit.** Encapsulated data communicated between peer layers on the mobile
 24 station and base station. Unless specified otherwise, in this document PDU refers to the
 25 Layer 3 protocol data unit transferred at the interface between [Layer 3](#) and [Layer 2](#).

26 **Protocol Stack.** Conceptual model of the layered architecture for communication protocols
 27 (see Layering) in which layers within a station are represented in the order of their numeric
 28 designation and requiring that transferred data be processed sequentially by each layer, in
 29 the order of their representation. Graphically, the “stack” is drawn vertically, with the layer
 30 having the lowest numeric designation at the base.

31 **Public Long Code.** The long code characterized by the public long code mask.

32 **Public Long Code Mask.** The long code mask used to form the public long code. The mask
 33 contains a permutation of the bits of the ESN, and also includes the channel number when
 34 used for a Supplemental Code Channel. See also Private Long Code Mask and Long Code.

35 **PUF.** See Power Up Function.

36 **PUF Attempt.** A sequence of PUF probes sent by the mobile station in response to a *Power*
 37 *Up Function Message*.

38 **PUF Probe.** One or more consecutive frames on the Reverse Traffic Channel within which
 39 the mobile station transmits the PUF pulse.

1 PUF Pulse. Portion of PUF probe that may be transmitted at elevated output power.

2 PUF Target Frequency. The CDMA frequency assignment to which the base station directs
3 a mobile station for transmitting the PUF probe.

4 Punctured Code. An error-correcting code generated from another error-correcting code by
5 deleting (i.e., puncturing) code symbols from the coder output.

6 QoS. See Quality of Service.

7 Quality of Service. Set of parameters and procedures associated with a service and/or
8 user, indicating some of the capabilities and constraints related to the delivery of the
9 service to the user.

10 Quick Paging. A feature that permits mobile stations to further conserve battery power
11 beyond the savings achieved by slotted mode operation. See also Paging Indicator and
12 Configuration Change Indicator.

13 Quick Paging Channel. An uncoded, on-off-keyed (OOK) spread spectrum signal sent by
14 base stations to inform slotted mode mobile stations, operating in the idle state, whether to
15 monitor the Paging Channel or the Forward Common Control Channel. See also Quick
16 Paging, Paging Indicator, and Configuration Change Indicator.

17 Quick Paging Channel Slot. An 80 ms interval on the Quick Paging Channel. See also
18 Paging Indicator and Configuration Change Indicator.

19 Quick Repeats. Additional transmissions of identical copies of a message within a short
20 interval to increase the probability that the message is received correctly.

21 r-csch. Reverse common signaling logical channel.

22 r-dsch. Reverse dedicated signaling logical channel.

23 Radio Configuration. A set of Forward Traffic Channel and Reverse Traffic Channel
24 transmission formats that are characterized by physical layer parameters such as
25 transmission rates, modulation characteristics and spreading rate. See Table 3.1.3.1-1 and
26 Table 2.1.3.1-1 of [2].

27 Radio Configuration Class. A group of Radio Configurations. All Radio Configurations, for
28 the Forward Traffic Channel and the Reverse Traffic Channel, are divided into three classes
29 by the types of pre-spreading symbols (BPSK and QPSK) and spreading rates. RC Class 1
30 consists of RC 1 and RC 2 for the Forward Traffic Channel and the Reverse Traffic Channel.
31 RC Class 2 consists of RC 3 and RC 4 of the Reverse Traffic Channel, and RC 3, RC 4 and
32 RC 5 of the Forward Traffic Channel. RC Class 3 consists of RC 5 and RC 6 of the Reverse
33 Traffic Channel, and RC 6, RC 7, RC 8, and RC 9 of the Forward Traffic Channel.

34 RC. See Radio Configuration.

35 Registration. The process by which a mobile station identifies its location and parameters
36 to a base station.

37 Registration Zone. A collection of one or more base stations treated as a unit when
38 determining whether a mobile station should perform zone-based registration. See also
39 User Zone, with which it should not be confused.

1 **Release.** A process that the mobile station and base station use to inform each other of call
 2 disconnect.

3 **Remaining Set.** The set of all allowable pilot offsets as determined by PILOT_INC,
 4 excluding the pilot offsets of the pilots in the Active Set, Candidate Set, and Neighbor Set.
 5 See also Active Set, Candidate Set, and Neighbor Set.

6 **Replay Attack.** An attempt by a third party to record an over-the-air message and send it
 7 later in time so as to mislead the receiver.

8 **Request.** A Layer 3 message generated by either the mobile station or the base station to
 9 retrieve information, ask for service, or command an action.

10 **Response.** A Layer 3 message generated as a result of another message, typically a
 11 request.

12 **Reverse CDMA Channel.** The CDMA Channel from the mobile station to the base station.
 13 From the base station's perspective, the Reverse CDMA Channel is the sum of all mobile
 14 station transmissions on a CDMA Frequency Assignment.

15 **Reverse Dedicated Control Channel.** A Dedicated Control Channel that is transmitted on
 16 the Reverse CDMA Channel.

17 **Reverse Fundamental Channel.** A Fundamental Channel that is transmitted on the
 18 Reverse CDMA Channel.

19 **Reverse Pilot Channel.** A non-data-bearing direct-sequence spread spectrum signal
 20 transmitted by each CDMA mobile station whenever the Enhanced Access Channel, Reverse
 21 Common Control Channel, or Reverse Traffic Channel is enabled. The Reverse Pilot
 22 Channel allows a base station to acquire the timing of the Reverse CDMA Channel and
 23 provides a phase reference for coherent demodulation. The Reverse Pilot Channel may be
 24 transmitted either continuously or in gated mode.

25 **Reverse Supplemental Channel.** A Supplemental Channel that is transmitted on the
 26 Reverse CDMA Channel.

27 **Reverse Supplemental Code Channel.** A Supplemental Code Channel that is transmitted
 28 on the Reverse CDMA Channel.

29 **Reverse Traffic Channel.** A Traffic Channel on which data and signaling are transmitted
 30 from a mobile station to a base station. The Reverse Traffic Channel is composed of zero or
 31 one Reverse Fundamental Channel, zero to seven Reverse Supplemental Code Channels,
 32 zero to two Reverse Supplemental Channels, and zero or one Reverse Dedicated Control
 33 Channel.

34 **Roamer.** A mobile station operating in a wireless cellular system (or network) other than
 35 the one from which service was subscribed. See also Foreign NID Roamer and Foreign SID
 36 Roamer.

37 **SAP.** See Service Access Point.

38 **SCI.** See Synchronized Capsule Indicator Bit.

39 **SDU.** See Service Data Unit.

Search Window. The range of PN sequence offsets that a mobile station searches for a pilot.

Search Window Offset. PN sequence offset used by the mobile station to position the search window when searching for a pilot.

Secondary CDMA Channel. A pre-assigned channel in a CDMA Cellular System used by the mobile station for initial acquisition. See also Primary CDMA Channel.

Secondary Traffic. An additional traffic stream that can be carried between the mobile station and the base station on the Traffic Channel. See also Primary Traffic and Signaling Traffic.

Service Access Point. Conceptual point at the interface between two adjacent layers where services are provided to the upper layer and data and protocol information is exchanged between layers.

Service Configuration. The common attributes used by the mobile station and the base station to build and interpret Traffic Channel frames. Service configuration corresponds to the parameters contained in the Service Configuration information record and the Non-negotiable Service Configuration information record. Examples of such parameters include Forward and Reverse Traffic Channel multiplex options, Forward and Reverse Traffic Channel transmission rates, service option connections, and reverse pilot gating rate.

Service Data Unit. Data transferred between adjacent layers in the protocol stack. Unless specified otherwise in this document SDU refers to the Layer 3 service data unit being transferred to/from Layer 2.

Service Negotiation. The procedures used by the mobile station and base station to establish a service configuration. See also Service Option Negotiation.

Service Option. A service capability of the system. Service options may be applications such as voice, data, or facsimile. See [30].

Service Option Connection. A particular instance or session in which the service defined by a service option is used. Associated with a service option connection are a reference, which is used for uniquely identifying the service option connection, a service option, which specifies the particular type of service in use, a Forward Traffic Channel traffic type, which specifies what type of Forward Traffic Channel traffic is used to support the service option connection, and a Reverse Traffic Channel traffic type, which specifies what type of Reverse Traffic Channel traffic is used by the service option connection.

Service Option Connection Reference. A designator used by the base station and mobile station to uniquely identify a particular service option connection.

Service Option Negotiation. The procedures used by the mobile station and base station to establish a service configuration. Service option negotiation is similar to service negotiation, but allows less flexibility for specifying the attributes of the service configuration. See also Service Negotiation.

Service Redirection. The process by which the base station alters the system selection made by a mobile station. It can be used temporarily during maintenance and testing to divert subscribers to an alternate system.

Serving Frequency. The CDMA frequency on which a mobile station is currently communicating with one or more base stations.

Shared Secret Data (SSD). A 128-bit pattern stored in the mobile station (in semi-permanent memory) and known by the base station. SSD is a concatenation of two 64-bit subsets: SSD_A, which is used to support the authentication procedures, and SSD_B, which serves as one of the inputs to the process generating the encryption mask and private long code.

Short Message Services (SMS). A suite of services such as SMS Text Delivery, Digital Paging (i.e., Call Back Number - CBN), and Voice Mail Notification (VMN).

SID. See System Identification.

Signaling Traffic. Control messages that are carried between the mobile station and the base station on the Traffic Channel. See also Primary Traffic and Secondary Traffic.

Silent Re-origination. An autonomous attempt to re-originate a call after the mobile station Layer 3 receives an access attempt failure indication from Layer 2 following a user-initiated origination or a re-origination. Silent re-origination does not apply to any user-programmable capabilities or services, e.g. user-programmable automatic redial.

Slotted Mode. An operation mode of the mobile station in which the mobile station monitors only selected slots on the Paging Channel or the Forward Common Control Channel when in the *Mobile Station Idle State*.

Soft Handoff. A handoff occurring while the mobile station is in the *Mobile Station Control on the Traffic Channel State*. This handoff is characterized by commencing communications with a new base station on the same CDMA Frequency Assignment before terminating communications with an old base station. See also Hard Handoff.

SOM. Start-of-Message bit.

Space Time Spreading (STS). A forward link transmission method which transmits all forward link channel symbols on multiple antennas and spreads the symbols with complementary Walsh or quasi-orthogonal functions.

Spreading Rate. The PN chip rate of the system, defined as a multiple of 1.2288 Mcps.

Spreading Rate 1. A 1.2288 Mcps chip rate-based system using a direct-spread single carrier.

Spreading Rate 3. A 3.6864 Mcps chip rate-based system using three 1.2288 Mcps carriers on the Forward CDMA Channel. The Reverse CDMA Channel uses a 3.6864 Mcps direct-spread carrier.

sps. Symbols per second.

SR. See Spreading Rate.

SR1. See Spreading Rate 1.

SR3. See Spreading Rate 3.

SR3 Frequencies. CDMA frequencies for the three 1.2288 Mcps carriers on the Forward

1 CDMA Channel. SR3 frequencies include the lowest SR3 frequency, the center SR3
 2 frequency, and the highest SR3 frequency.

3 **SR3 Primary Pilot.** See Primary Pilot.

4 **SSD.** See Shared Secret Data.

5 **Station Class Mark (SCM).** An identification of certain characteristics of a mobile station.
 6 Classes are defined in Table 2.3.3-1 of [12] and Table 6.3.3-1 of this document.

7 **Status Information.** The following status information is used to describe mobile station
 8 operation when using the analog system:

- 9 • Serving-System Status. Indicates whether a mobile station is tuned to channels
 10 associated with System A or System B.
- 11 • First Registration ID Status. A status variable used by the mobile station in
 12 association with its processing of received Registration ID messages.
- 13 • First Location Area ID Status. A status variable used by the mobile station in
 14 association with its processing of received Location Area ID messages.
- 15 • Location Registration ID Status. A status variable used by the mobile station in
 16 association with its processing of power-up registrations and location-based
 17 registrations.
- 18 • First Idle ID Status. A status variable used by the mobile station in association with
 19 its processing of the Idle Task.
- 20 • Local Control Status. Indicates whether a mobile station must respond to local
 21 control messages.
- 22 • Roam Status. Indicates whether a mobile station is in its home system.
- 23 • Termination Status. Indicates whether a mobile station must terminate the call
 24 when it is on an analog voice channel.
- 25 • Update Protocol Capability Status. Indicates whether the mobile station should
 26 report its protocol capability to the serving system.

27 **Supplemental Channel.** An optional portion of a Traffic Channel (Forward or Reverse
 28 Radio Configurations 3 and above) that operates in conjunction with a Fundamental
 29 Channel in that Traffic Channel, and (optionally) with other Supplemental Channels to
 30 provide higher data rate services.

31 **Supplemental Code Channel.** An optional portion of a Traffic Channel (Forward or
 32 Reverse Radio Configurations 1 and 2) that operates in conjunction with a Fundamental
 33 **Code**-Channel in that Traffic Channel, and (optionally) with other Supplemental Code
 34 Channels to provide higher data rate services. On this channel a combination of primary
 35 data, secondary data, or both (but never signaling information) are transmitted.

36 **Symbol.** See Code Symbol and Modulation Symbol.

37 **Sync Channel.** Code channel 32 in the Forward CDMA Channel which transports the
 38 synchronization message to the mobile station.

1 **Sync Channel Superframe.** An 80 ms interval consisting of three Sync Channel frames
 2 (each 26.666... ms in length).

3 **System.** A system is a ~~cellular telephone service or personal wireless~~ communications
 4 service that covers a geographic area such as a city, metropolitan region, county, or group
 5 of counties. See also Network.

6 **System Identification (SID).** A number uniquely identifying a ~~cellular or PCS wireless~~
 7 system.

8 **System Time.** The time reference used by the system. System Time is synchronous to
 9 UTC time (except for leap seconds) and uses the same time origin as GPS time. All base
 10 stations use the same System Time (within a small error). Mobile stations use the same
 11 System Time, offset by the propagation delay from the base station to the mobile station.
 12 See also Universal Coordinated Time.

13 **Target Frequency.** The CDMA frequency assignment to which the base station directs a
 14 mobile station in a handoff using an *Extended Handoff Direction Message*, a *General*
 15 *Handoff Direction Message*, or a *Universal Handoff Direction Message*.

16 **TD.** See Transmit Diversity.

17 **Temporary Mobile Station Identity (TMSI).** A temporary mobile station identification
 18 assigned by the base station.

19 **Timer-Based Registration.** A registration method in which the mobile station registers
 20 whenever a counter reaches a predetermined value. The counter is incremented an average
 21 of once per 80 ms period.

22 **Time Reference.** A reference established by the mobile station that is synchronous with
 23 the earliest arriving multipath component used for demodulation.

24 **TMSI.** See Temporary Mobile Station Identity.

25 **TMSI Zone.** The administrative zone that allows the TMSI to be reused. The TMSI_CODE
 26 has to be unique within a TMSI zone but may be reused in a different TMSI zone. The TMSI
 27 zone is identified by the field TMSI_ZONE.

28 **Traffic Channel.** A communication path between a mobile station and a base station used
 29 for user and signaling traffic. The term Traffic Channel implies a Forward Traffic Channel
 30 and Reverse Traffic Channel pair. See also Forward Traffic Channel and Reverse Traffic
 31 Channel.

32 **Traffic Channel Preamble.** For RC1 and RC2, a sequence of all-zero frames that is sent by
 33 the mobile station on the Reverse Traffic Channel as an aid to Traffic Channel acquisition.
 34 For RC3 to RC6 inclusive, the traffic preamble is the ungated transmission of the Reverse
 35 Pilot.

36 **Transmit Diversity.** See Orthogonal Transmit Diversity and Space Time Spreading.

37 **Unassured Mode.** Mode of delivery that does not guarantee that a PDU will be delivered to
 38 the peer. The LAC entity at the receiver does not acknowledge a PDU sent in unassured
 39 mode.

1 Unique Challenge-Response Procedure. An exchange of information between a mobile
 2 station and a base station for the purpose of confirming the mobile station's identity. The
 3 procedure is initiated by the base station and is characterized by the use of a challenge-
 4 specific random number (i.e., RANDU) instead of the random variable broadcast globally
 5 (RAND).

6 Unique Random Variable (RANDU). A 24-bit random number generated by the base
 7 station in support of the Unique Challenge-Response procedure.

8 Universal Coordinated Time (UTC). An internationally agreed-upon time scale maintained
 9 by the Bureau International de l'Heure (BIH) used as the time reference by nearly all
 10 commonly available time and frequency distribution systems i.e., WWV, WWVH, LORAN-C,
 11 Transit, Omega, and GPS.

12 User Zone. An area within which CDMA Tiered Services may be provided. It may
 13 correspond to an RF coverage area, or it may be established independent of RF topology.
 14 User Zones are classified as broadcast versus mobile-specific, and as active versus passive.
 15 See Broadcast User Zone, Mobile-Specific User Zone, Active User Zone, and Passive User
 16 Zone. See also Registration Zone, with which it should not be confused.

17 User Zone Registration. An autonomous registration method in which the mobile station
 18 registers when it selects an active user zone while in the Idle State. See also Zone-Based
 19 Registration, with which it should not be confused.

20 Upper Layers. General reference to Layer 3 and the layers above it.

21 User Zone Exit parameter. A parameter used by the mobile station to determine if it
 22 should exit a User Zone.

23 UTC. Universal Temps Coordiné. See Universal Coordinated Time.

24 Voice Privacy. The process by which user voice transmitted over a CDMA Traffic Channel
 25 is afforded a modest degree of protection against eavesdropping over the air.

26 Walsh Chip. See [2].

27 Walsh Function. One of 2^N time orthogonal binary functions (note that the functions are
 28 orthogonal after mapping '0' to 1 and '1' to -1).

29 Wireless Local Loop. Wireless alternative access mechanism to provide standard
 30 telecommunication services using standard wireline terminal via a radio link between the
 31 network and customer premises equipment.

32 WLL. See Wireless Local Loop.

33 Zone-Based Registration. An autonomous registration method in which the mobile station
 34 registers whenever it enters a zone that is not in the mobile station's zone list. See also
 35 User Zone Registration, with which it should not be confused.

36 Zone Timer. A timer used by the mobile station to remove outdated entries from its list of
 37 zones in which it has previously registered.

38 μs. Microsecond (10^{-6} second).

1 1.1.2 Numeric Information

2 Numeric information is used to describe the operation of the mobile station. The following
 3 subscripts are used to clarify the use of the numeric information:

- 4 • “s” indicates a value stored in a mobile station’s temporary memory.
- 5 • “sv” indicates a stored value that varies as a mobile station processes various tasks.
- 6 • “sl” indicates the stored limits on values that vary.
- 7 • “r” indicates a value received by a mobile station over a forward analog control
 8 channel or a CDMA Forward Channel.
- 9 • “p” indicates a value set in a mobile station’s permanent security and identification
 10 memory.
- 11 • “s-p” indicates a value stored in a mobile station’s semi-permanent security and
 12 identification memory.

13 1.1.2.1 Reserved

14 1.1.2.2 CDMA Numeric Information

15 The following are internal values that are stored by the mobile station in temporary memory
 16 that are not sent over the air. See Annex F for values stored by the mobile station in
 17 permanent and semi-permanent memory.

18 **1XRL_FREQ_OFFSET_s** – Frequency offset of the 1X reverse link.

19 **A41_SYS_PAR_MSG_SEQ_s** – ANSI-41 *System Parameters Message* sequence number.

20 **ACC_CHAN_s** – Number of Access Channels supported by the current Paging Channel.

21 **ACC_ENT_HO_ORDER_s** – Access entry handoff permitted from the *Mobile Station Order and*
 22 *Message Processing Operation* of the *Mobile Station Idle State*.

23 **ACCESS_ENTRY_HO_s** – Idle handoff permitted when entering the *System Access State*.

24 **ACCESS_HO_s** – Handoff permitted after performing an access attempt while the mobile
 25 station is in the *System Access State*.

26 **ACCESS_HO_ALLOWED_s** – Handoff permitted to the corresponding neighbor base station
 27 while in the *System Access State*.

28 **ACCESS_HO_LIST** – List of pilots to which access handoff or access probe handoff is
 29 permitted.

30 **ACC_HO_LIST_UPD_s** – Access handoff list update permitted indicator.

31 **ACCESS_HO_MSG_RSP_s** – Access handoff permitted in the *System Access State* between
 32 the time that the mobile station receives a message and responds to that message.

33 **ACCESS_PROBE_HO_s** – Access probe handoff permitted during an access attempt in the
 34 *Mobile Station Origination Attempt Substate* or the *Page Response Substate*.

- 1 **ACC_MSG_SEQ_s** – Last received Access Parameters Message or Enhanced Access
2 Parameters Message sequence number.
- 3 **ACC_PROBE_HO_OTHER_MSG_s** – Access probe handoff permitted for Access Channel
4 messages other than the *Origination Message* and the *Page Response Message*.
- 5 **ACCT_INCL_EMG_s** – Access Control based on Call Type (ACCT) applies to emergency calls
6 indicator.
- 7 **ACCT_SO_GRP_LIST** – List of service option groups that have Access Control based on Call
8 Type (ACCT) enabled.
- 9 **ACCT_SO_LIST** – List of individual service options that have Access Control based on Call
10 Type (ACCT) enabled.
- 11 **ACH_ACC_TMO_s** – Access Channel acknowledgment timeout, in units of 80 ms.
- 12 **ACK_WAITING_{s[i]}** – Acknowledgment status indicator for message sequence number i. Set
13 to YES if an acknowledgment is pending for the message; otherwise, set to NO.
- 14 **ADD_INTERCEPT_s** – The intercept in the inequality criterion for adding a pilot to the Active
15 Set.
- 16 **AGE_s** – Neighbor list age. For each pilot in the Neighbor Set, the mobile station increments
17 this counter each time a *Neighbor List Update Message* or an *Extended Neighbor List Update*
18 Message is received. When AGE_s exceeds NGBHR_MAX_AGE, the pilot is deleted from the
19 Neighbor Set.
- 20 **ALIGN_TIMING_USED_s** – Indicates whether the mobile station aligns the times of visits
21 away from the Serving Frequency, as requested by the base station, in the periodic search
22 procedures.
- 23 **ANALOG_CHAN_s** – Analog channel number for CDMA-to-analog handoff.
- 24 **ANALOG_NGHBR_LIST** – List containing information about neighboring analog systems.
- 25 **AN_CHAN_TYPE_s** – Analog voice channel type.
- 26 **ASSIGNED_QPAGECH_s** – Assigned Quick Paging Channel number.
- 27 **AUTH_s** – Current authentication mode.
- 28 **AUTO_MSG_INTERVAL** – Autonomous message interval.
- 29 **AUTO_MSG_SUPPORTED** – Autonomous message supported indicator.
- 30 **BAD_FRAMES_s** – Forward Fundamental Channel bad frames count. The number of
31 received bad forward Fundamental Channel frames.
- 32 **BASE_CLASS_s** – Base station class of the current base station.
- 33 **BASE_ID_s** – Base station identification of the current base station.
- 34 **BASE_LAT_s** – Latitude of the current base station, in units of 0.25 seconds.
- 35 **BASE_LONG_s** – Longitude of the current base station, in units of 0.25 seconds.

1 **BEGIN_PREAMBLE_s** – A stored variable in the mobile station that contains the size of the
 2 preamble that shall be transmitted on a Reverse Supplemental Code Channel at the
 3 beginning of a Reverse Supplemental Code Channel transmission.

4 **BKOFF_s** – Access Channel probe sequence backoff range.

5 **BRAT_s** – Data rate of the Broadcast Control Channel.

6 **BYPASS_ALERT_ANSWER_s** – Mobile station termination bypass indicator. This is set to ‘1’
 7 if the mobile station is to bypass the *Waiting for Order Substate* and the *Waiting for Mobile*
 8 *Station Answer Substate*, and proceed directly to the *Conversation Substate* when Layer 3
 9 receives a *forward dedicated channel-acquired* indication from Layer 2.

10 **CDMABAND_s**. CDMA band class. The CDMA band class currently used by the mobile
 11 station.

12 **CDMACH_s** – CDMA Channel number. The CDMA Channel number currently used by the
 13 mobile station.

14 **CF_CDMABAND_s** – Candidate Frequency CDMA band class. The CDMA band class
 15 specified in the *Candidate Frequency Search Request Message*.

16 **CF_CDMACH_s** – Candidate Frequency CDMA Channel number. The CDMA Channel
 17 number specified in the *Candidate Frequency Search Request Message*.

18 **CF_PILOT_INC_s** – PILOT_INC to be used by the mobile station after an inter-frequency hard
 19 handoff to the CDMA Candidate Frequency is successfully completed.

20 **CF_SEARCH_PRIORITY_INCL_s** – Candidate Frequency neighbor pilots’ search priority
 21 included indicator.

22 **CF_SRCH_OFFSET_INCL_s** – Candidate Frequency neighbor pilot search window offset
 23 included indicator.

24 **CF_SRCH_WIN_NGHBR_INCL_s** – Candidate Frequency neighbor pilots’ search window
 25 included indicator.

26 **CF_SRCH_WIN_N_s** – Search window size for the Candidate Frequency Search Set.

27 **CF_SRCH_WIN_R_s** – Search window size to be used for the Remaining Set after an inter-
 28 frequency hard handoff to the CDMA Candidate Frequency is successfully completed.

29 **CF_T_ADD_s** – Pilot detection threshold to be used on the CDMA Candidate Frequency. The
 30 stored value is a positive value in units of 0.5 dB.

31 **CH_IND_s** – A two-bit physical channel indicator, based on the currently established
 32 physical channels. The least significant bit denotes the Fundamental Channel, and the
 33 most significant bit denotes the Dedicated Control Channel.

34 **CHAN_LST_MSG_SEQ_s** – *CDMA Channel List Message* sequence number.

35 **CODE_CHAN_LIST** – Code Channel List. A descriptive structure used to manage the
 36 Forward Fundamental Channel, and Forward Supplemental Code Channels, if any,
 37 associated with the mobile station’s Active Set.

38 **COMPLETE_PUF_FRAME_s** – Number of power control groups required to make the PUF

1 probe an integer number of frames.

2 **COMPLETE_SEARCH_s** – Flag to indicate if the mobile station is to complete the search of
 3 the Candidate Frequency Search Set after it has determined that the inter-frequency
 4 handoff attempt to the CDMA Candidate Frequency is unsuccessful.

5 **CONFIG_MSG_SEQ_s** – Current message sequence number for the *System Parameters*
 6 *Message*, *Neighbor List Message*, *Extended Neighbor List Message*, *General Neighbor List*
 7 *Message*, *CDMA Channel List Message*, *Extended System Parameters Message*, *Global Service*
 8 *Redirection Message*, *Private Neighbor List Message*, *User Zone Identification Message*,
 9 *Extended CDMA Channel List Message*, *Extended Global Service Redirection Message*, [MC-RR](#)
 10 [Parameters Message](#), [ANSI-41 System Parameters Message](#).

11 **COUNTER_ENABLED_s** – Timer-based registration indicator. Set to YES if timer-based
 12 registration is enabled; otherwise, set to NO.

13 [C SIG ENCRYPT MODE_s](#) – Common Channel signaling message encryption mode.

14 **CS_SUPPORTED_s** – Base station Concurrent Services supported indicator. This 1-bit field
 15 is set to ‘1’ if the base station supports [concurrent connection of at least two services that](#)
 16 [use either Primary or Secondary traffic type eoncurrent services](#).

17 **CURR_ACC_MSG_SEQ** – Current Access [Parameters](#) Message or Enhanced Access
 18 *Parameters Message* sequence number.

19 **CURRENT_ACTIVE_PILOT_s** – Identifies the current pilot in the Active Set during an access
 20 attempt.

21 **CURRENT_PUF_PROBE_s** – Number of the next PUF probe to be transmitted within the PUF
 22 attempt.

23 **DAYLT_s** – Daylight Savings Time indicator.

24 **DCCH_BAD_FRAMES_s** – Forward Dedicated Control Channel bad frames count. The
 25 number of received bad forward Dedicated Control Channel frames.

26 **DCCH_TOT_FRAMES_s** – Total forward Dedicated Control Channel frames received. The
 27 total number of received forward Dedicated Control Channel frames, counted for Forward
 28 Traffic Channel power control.

29 **DECORR** – Hashing function input used to decorrelate hashing function applications for
 30 the same mobile station.

31 **DEFAULT_CONFIG_s** – Mobile station current default configuration.

32 **DELETE_FOR_TMSI_s** – A storage variable in the mobile station that indicates whether the
 33 mobile station should delete its current TMSI if the TMSI was assigned in a different TMSI
 34 zone.

35 **DIFF_RX_PWR_THRESH_s** – Threshold for the difference between the received power on the
 36 Serving Frequency and the received power on the CDMA Candidate Frequency for the
 37 mobile station to search for pilots on the CDMA Candidate Frequency.

38 **DISTANCE** – Distance from registered base station to current base station, used for
 39 distance-based registration.

- 1 **DROP_INTERCEPT_s** – The intercept in the inequality criterion for dropping a pilot from the
2 Active Set.
- 3 **DSCC_s** – Digital supervisory color code.
- 4 **D SIG ENCRYPT MODE_s** – Dedicated Channel signaling message encryption mode.
- 5 **DTX_s** – Discontinuous transmission mode for analog channel assignment and CDMA-to-
6 analog handoff.
- 7 **EACH_ACC_TMO_s** – Enhanced Access Channel acknowledgment timeout, in units of 20
8 ms.
- 9 **EACH_SLOT_s** – See [2].
- 10 **EACH_SLOT_OFFSET1_s** – See [2].
- 11 **EACH_SLOT_OFFSET2_s** – See [2].
- 12 **EC_IO_THRESH_s** – Pilot E_C/I_O threshold used for system reselection.
- 13 **EC_THRESH_s** – Pilot power threshold used for system reselection.
- 14 **ENC KEY SIZE_s** – The key size used for signaling and user information encryption on
15 common channel and dedicated channel.
- 16 **ENC KEY_s** – The encryption key for signaling and user information encryption on common
17 channel and dedicated channel.
- 18 **ENC SEQ** – An 8-bit temporary variable for encryption/decryption.
- 19 **ENCRYPT_MODE_s** – Current message encryption mode.
- 20 **EXCL_P_REV_MS** – Exclude from redirection by MOB_P_REV indicator.
- 21 **EXT_NGHBR_LST_MSG_SEQ_s** – Extended Neighbor List Message sequence number.
- 22 **EXT_CHAN_LIST_s** – Extended CDMA Channel List Message sent indicator.
- 23 **EXT_CHAN_LST_MSG_SEQ_s** – Extended CDMA Channel List Message sequence number.
- 24 **EXT_DECRYPT_SEQ[i]** – The 32-bit crypto-sync counter used to decrypt signaling
25 messages, where $i = 0$ is for unassured messages and $i = 1$ is for assured messages.
- 26 **EXT_ENCRYPT_SEQ[i]** – The 32-bit crypto-sync counter used to encrypt signaling
27 messages, where $i = 0$ is for unassured messages and $i = 1$ is for assured messages.
- 28 **EXT_ENC_SEQ** – A 32-bit temporary variable for encryption/decryption.
- 29 **EXT_GLOBAL_REDIRECT_s** – Extended Global Service Redirection Message sent indicator.
- 30 **EXT_GLOB_SERV_REDIR_MSG_SEQ_s** – Extended Global Service Redirection Message
31 sequence number.
- 32 **EXT_SYS_PARAMETER_s** – Extended System Parameters Message sent indicator.
- 33 **EXT_SYS_PAR_MSG_SEQ_s** – Extended System Parameters Message sequence number.
- 34 **FCCCH_s** – Current Forward Common Control Channel number.

1 **FIRST_ACTIVE_PILOT_s** – While the mobile station is in the *System Access State*, identifies
 2 the pilot to which the first access probe was transmitted, upon entering the *System Access*
 3 *State*.

4 **FOR_DURATION_s** – A stored variable in the mobile station that contains the duration (in
 5 units of 80 ms) of a forward Supplemental Code Channel transmission that begins at time
 6 FOR_START_TIME_s.

7 **FOR_FCH_RC_s** – Forward Fundamental Channel Radio Configuration.

8 **FOR_FRAME_40_MAX_RATE_s** – The maximum data rate for the mobile station's
 9 transmission at 40 ms frame length on the Forward Supplemental Channel.

10 **FOR_FRAME_80_MAX_RATE_s** – The maximum data rate for the mobile station's
 11 transmission at 80 ms frame length on the Forward Supplemental Channel.

12 **FOR_LINKED_HDM_SEQ_s** – Storage variable containing the most recent forward sequence
 13 number of the *General Handoff Direction Message* to which a *Supplemental Channel*
 14 *Assignment Message* forward assignment was linked.

15 **FOR_NID_REG_s** – Foreign NID roamer autonomous registration enable.

16 **FOR_RC_s** – Forward Channel Radio Configuration.

17 **FOR_SCH_CC_INDEX_s** – Supplemental code channel index used on the Supplemental
 18 Channel.

19 **FOR_SCH_DURATION_s** – A stored variable in the mobile station which contains the
 20 duration of a forward Supplemental Channel transmission which begins at time
 21 FOR_SCH_START_TIME_s.

22 **FOR_SCH_FRAME_LENGTH_s** – The Forward Supplemental Channel frame length.

23 **FOR_SCH_RATE_s** – The rate of the Forward Supplemental Channel.

24 **FOR_SCH_START_TIME_s** – A stored variable in the mobile station which contains the
 25 System Time, in units of time specified by START_TIME_UNIT_s, (modulo 32) at which the
 26 mobile station shall start (or resume) processing Forward Supplemental Channels.

27 **FOR_SID_REG_s** – Foreign SID roamer autonomous registration enable.

28 **FOR_START_TIME_s** – A stored variable in the mobile station that contains the System
 29 Time, in units of 80 ms, (modulo 64) at which the mobile station shall start (or resume)
 30 processing Forward Supplemental Code Channels.

31 **FPC_DCCH_CURR_SETPT_s** – Current power control subchannel outer loop setpoint for the
 32 Forward Dedicated Control Channel.

33 **FPC_DCCH_FER_s** – Target frame error rate for the Forward Dedicated Control Channel.

34 **FPC_DCCH_MAX_SETPT_s** – Maximum value of the power control subchannel outer loop
 35 setpoint for the Forward Dedicated Control Channel.

36 **FPC_DCCH_MIN_SETPT_s** – Minimum value of the power control subchannel outer loop
 37 setpoint for the Forward Dedicated Control Channel.

- 1 **FPC_DELTA_SCH_SETPT_s** – The difference between the Fundamental Channel current
 2 power control subchannel outer loop setpoint and the Supplemental Channel current power
 3 control subchannel outer loop setpoint.
- 4 **FPC_DELTA_SETPT_s** – The difference between the Fundamental Channel current power
 5 control subchannel outer loop setpoint and the Dedicated Control Channel current power
 6 control subchannel outer loop setpoint.
- 7 **FPC_FCH_CURR_SETPT_s** – Current power control subchannel outer loop setpoint for the
 8 Forward Fundamental Channel.
- 9 **FPC_FCH_FER_s** – Target frame error rate for the Forward Fundamental Channel.
- 10 **FPC_FCH_MAX_SETPT_s** – Maximum value of the power control subchannel outer loop
 setpoint for the Forward Fundamental Channel.
- 12 **FPC_FCH_MIN_SETPT_s** – Minimum value of the power control subchannel outer loop
 setpoint for the Forward Fundamental Channel.
- 14 **FPC_MODE_s** – Forward power control operating mode.
- 15 **FPC_MODE_NO_SCH_s** – Forward power control operating mode except during the forward
 Supplemental Channel assignment interval.
- 17 **FPC_MODE_SCH_s** – Forward power control operating mode during the forward
 Supplemental Channel assignment interval.
- 19 **FPC_PRI_CHAN_s** – Primary power control subchannel measured channel.
- 20 **FPC_SEC_CHAN_s** – Index of Forward Supplemental Channel to be measured by the
 secondary power control subchannel.
- 22 **FPC_SCH_CURR_SETPT_{s[i]}** – Current power control subchannel outer loop setpoint for
 Forward Supplemental Channel i.
- 24 **FPC_SCH_FER_{s[i]}** – Target frame error rate for Forward Supplemental Channel i.
- 25 **FPC_SCH_MAX_SETPT_{s[i]}** – Maximum value of the power control subchannel outer loop
 setpoint for Forward Supplemental Channel i.
- 27 **FPC_SCH_MIN_SETPT_{s[i]}** – Minimum value of the power control subchannel outer loop
 setpoint for Forward Supplemental Channel i.
- 29 **FPC_SETPT_THRESH_s** – Power control subchannel outer loop setpoint report threshold for
 the Dedicated Control Channel.
- 31 **FPC_SETPT_THRESH_SCH_s** – Power control subchannel outer loop setpoint report
 threshold for the Supplemental Channel.
- 33 **FRAME_OFFSET_s** – Current Traffic Channel frame offset, in units of 1.25 ms.
- 34 **GEN_NGHBR_LST_MSG_SEQ_s** – *General Neighbor List Message sequence number*.
- 35 **GLOBAL_REDIRECT_s** – *Global Service Redirection Message sent indicator*.
- 36 **GLOB_SERV_REDIR_MSG_SEQ_s** – *Global Service Redirection Message sequence number*.
- 37 **GRANTED_MODE_s** – Mobile station current granted mode.

1 **HASH_KEY** – Hashing function input that determines the return value. Derived from
 2 IMSI_O.

3 **HDM_SEQs** – Last received *Extended Handoff Direction Message*, *General Handoff Direction*
 4 *Message*, or *Universal Handoff Direction Message* sequence number.

5 **HOME_REGs** – Home (non-roaming) autonomous registration enable.

6 **IGNORE_ESCAMs** – Identifies whether a mobile station will process the reverse
 7 supplemental channel assignment portion of the subsequent *Supplemental Channel*
 8 *Assignment Message* or *Reverse Supplemental Channel Assignment Mini Message*.

9 **IGNORE_SCAMs** – Identifies whether a mobile station will process the reverse supplemental
 10 code channel assignment portion of the subsequent *Supplemental Channel Assignment*
 11 *Message*.

12 **IMSI_11_12s** – The 11th and 12th digits of the IMSI used for address matching.

13 **IMSI_O_ADDR_NUMs** – The number of digits in the NMSI of the Operational IMSI (IMSI_O)
 14 minus four.

15 **IMSI_O_Ss** – The last 10-digits of Operational IMSI (IMSI_O).

16 **IMSI_O_11_12s** – The 11th and 12th digits of the Operational IMSI (IMSI_O).

17 **INIT_PWRs** – Initial power offset for Access Channel probes.

18 **LC_STATEs** – Long code state obtained from the *Sync Channel Message*.

19 **LOGICAL_TO_PHYSICAL_MAPPING_TABLE[]s** – This table contains the logical to physical
 20 mapping for signaling and user traffic.

21 **LP_SECs** – Leap seconds count (offset of CDMA system time from UTC).

22 **LTM_OFFs** – Local time offset from UTC, in units of 15 minutes.

23 **MAX_CAP_SZs** – Maximum number of Access Channel or *Enhanced Access Channel* frames
 24 in an Access Channel message capsule, less 3.

25 **MAX_NUM_ALT_SOs** – The maximum number of alternative service option numbers that
 26 the mobile station is allowed to include in the *Origination Message* or in the *Page Response*
 27 *Message*.

28 **MAX_NUM_PROBE_HOs** – The maximum number of times that a mobile station is
 29 permitted to perform an access probe handoff.

30 **MAX_PWR_PUFs** – Maximum number of PUF probes to be transmitted at maximum mobile
 31 station output power during a PUF attempt.

32 **MAX_REQ_SEQs** – Maximum number of access probe sequences for an Access Channel or
 33 Enhanced Access Channel request.

34 **MAX_RSP_SEQs** – Maximum number of access probe sequences for an Access Channel or
 35 Enhanced Access Channel response.

36 **MAX_SLOT_CYCLE_INDEXs** – Maximum value of the slot cycle index allowed by the
 37 current base station.

- 1 **MCC_s** – The Mobile Country Code used for address matching.
- 2 **MCC_O_s** – The Mobile Country Code of IMSI_O.
- 3 **MC_RR_PAR_MSG_SEQ_s** – *MC-RR System Parameters Message* sequence number.
- 4 **MEM_s** – Analog message encryption mode for CDMA-to-analog handoff.
- 5 **MIN_PILOT_EC_IO_THRESH_s** – Threshold for total E_c/I_o of pilots in the Serving Frequency
- 6 Active Set used in the Periodic Serving Frequency Pilot Report Procedure.
- 7 **MIN_PILOT_PWR_THRESH_s** – Threshold for total E_c of pilots in the Serving Frequency
- 8 Active Set used in the Periodic Serving Frequency Pilot Report Procedure.
- 9 **MIN_P_REV_s** – Minimum mobile station protocol revision level required for access to the
- 10 CDMA system.
- 11 **MIN_TOTAL_PILOT_EC_IO_s** – Total pilot strength threshold for the mobile station to
- 12 attempt to demodulate the Forward Traffic Channel on the CDMA Candidate Frequency.
- 13 **MOB_QOS_s** – Indicator of whether the mobile station is allowed to request QoS settings in
- 14 the *Origination Message*, *Origination Continuation Message*, or *Enhanced Origination*
- 15 *Message*.
- 16 **MOB_TERM_s** – Mobile station termination indicator. Set to ‘1’ if the mobile station will
- 17 accept mobile station terminated calls in its current roaming status.
- 18 **MSG_PSIST_s** – Persistence modifier for Access Channel message and Enhanced Access data
- 19 transmissions.
- 20 **MS_LAT_s** – The latitude of the mobile station as estimated by the base station.
- 21 **MS_LOC_TSTAMP_s** – The time corresponding to the estimate of mobile station’s latitude
- 22 and longitude.
- 23 **MS_LONG_s** – The longitude of the mobile station as estimated by the base station.
- 24 **MS_INIT_POS_LOC_SUP_IND_s** – *Mobile station initiated position location determination*
- 25 *supported indicator*.
- 26 **MULT_NIDS_s** – Multiple NID storage indicator. Set to ‘1’ if the mobile station may store
- 27 more than one entry in SID_NID_LIST_s for each SID.
- 28 **MULT_SIDS_s** – Multiple SID storage indicator. Set to ‘1’ if the mobile station may store
- 29 entries in SID_NID_LIST_s having different SIDs.
- 30 **NAR_AN_CAP_s** – Narrow analog voice channel capability.
- 31 **NDSS_ORIG_s** – NDSS Origination Indicator. Indicator used when the mobile station is
- 32 NDSS-redirected while originating a call.
- 33 **NGHBR_BAND_s** – Neighbor band class.
- 34 **NGHBR_CONFIG_s** – Neighbor base station channel allocation configuration.
- 35 **NGHBR_FREQ_s** – Neighbor CDMA channel number.
- 36 **NGHBR_LST_MSG_SEQ_s** – *Neighbor List Message* sequence number.

- 1 **NGHBR_MAX_AGE_s** – Neighbor set maximum age for retention in the set.
- 2 **NGHBR_PN_s** – Neighbor base station Pilot Channel PN sequence offset in units of 64 PN
3 chips.
- 4 **NGHBR_REC** – Record containing information about a neighbor base station (see also
5 NGHBR_REC_LIST).
- 6 **NGHBR_REC_LIST** – Neighbor base station record list. A descriptive structure used to
7 manage the base station's information records about neighbor base stations (see also
8 NGHBR_REC).
- 9 **NGHBR_SET_ACCESS_INFO_s** – Neighbor Set access handoff or access probe handoff
10 information included indicator.
- 11 **NGHBR_SET_ENTRY_INFO_s** – Neighbor Set access entry handoff information included
12 indicator.
- 13 **NGHBR_SET_SIZE_s** – Size of the Neighbor Set.
- 14 **NGHBR_TIMING_INCL_s** – Indicates that hopping pilot beacon timing information is
15 included.
- 16 **NGHBR_TX_DURATION_s** – Hopping pilot beacon transmit time duration.
- 17 **NGHBR_TX_OFFSET_s** – Hopping pilot beacon transmit time offset.
- 18 **NGHBR_TX_PERIOD_s** – Hopping pilot beacon transmit time period.
- 19 **NID_s** – Network identification. A network is a subset of the base stations within a
20 [wireless cellular or PCS](#) system.
- 21 **NOM_PWR_s** – Nominal transmit power offset. A correction factor to be used by mobile
22 stations in the open loop power estimate.
- 23 **NUM_ANALOG_NGHBR_s** – Number of neighboring analog systems.
- 24 **NUM_FCCCH_s** – Number of Forward Common Control Channels supported on the current
25 CDMA channel.
- 26 **NUM_PREAMBLE_s** – Number of Traffic Channel preamble.
- 27 **NUM_QPCH_s** – Number of Quick Paging Channels supported on the current CDMA channel.
- 28 **NUM_REV_CODES_s** – A storage variable in the mobile station that contains the number of
29 Reverse Supplemental Code Channels that will be utilized in the next Reverse Supplemental
30 Code Channel transmission beginning at time REV_START_TIME_s. A value of 0 indicates
31 no Reverse Supplemental Code Channel transmission will be permitted (i.e., there is no
32 pending Reverse Supplemental Code Channel transmission).
- 33 **NUM_STEP_s** – Number of access probes or enhanced access probes in a single access probe
34 sequence or enhanced access probe sequence.
- 35 **OTHER_REPORTED_LIST** – List of other pilots that have pilot strengths exceeding T_ADD
36 and that are not included in ACCESS_HO_LIST.

1 **PACAs** – PACA call indicator. Set to enabled to indicate that the mobile station is waiting
 2 for a priority access channel assignment; otherwise, set to disabled. In Sections 2 and 3,
 3 PACAs = 0 is equivalent to setting PACAs to disabled and PACAs = 1 is equivalent to setting
 4 PACAs to enabled.

5 **PACA_CANCEL** – PACA call cancel indicator. Set to ‘1’ when the mobile station is directed
 6 by the user to cancel the PACA call; otherwise, set to ‘0’.

7 **PACA_SIDs** – PACA system identifier. Equal to the SID of the system on which the mobile
 8 station originated a PACA call.

9 **PACA_TIMEOUTs** – PACA state timer duration. Specifies how long the mobile station
 10 should wait for a *PACA Message* from the base station.

11 **PACKET_ZONE_IDs** – Packet data services zone identifier of the base station.

12 **PAGECHs** – Current CDMA Paging Channel number.

13 **PAGED** – Indicator for a page match detected while the mobile station is in the *System*
 14 *Access State*.

15 **PAGE_CHANs** – Number of Paging Channels supported on the current CDMA channel.

16 **PAM_SZs** – Number of frames in the Access Channel or Enhanced Access Channel
 17 preamble, less 1.

18 **PARAMETER_REGs** – Parameter-change registration enable.

19 **PERIODIC_SEARCHs** – Flag to indicate if the mobile station is to perform a periodic search
 20 on the Candidate Frequency.

21 **PGSLOT** – Value obtained from the hashing function, used to determine the mobile
 22 station’s assigned Paging Channel slots.

23 **PILOT_ARRIVAL** – Time of occurrence, as measured at the mobile station antenna
 24 connector, of the earliest arriving usable multipath component of the pilot. The arrival time
 25 is measured relative to the mobile station’s time reference.

26 **PILOT_INFO_REQ_SUPPORTEDs** – Pilot information request supported indicator.

27 **PILOT_GATING_RATEs** – Reverse pilot gating rate on the Reverse Pilot Channel.

28 **PILOT_GATING_USE_RATE** – Reverse pilot gating rate enable indicator. It indicates
 29 whether or not the Reverse Pilot Channel is gated.

30 **PILOT_INCs** – Pilot PN sequence offset index increment. The interval between pilots, in
 31 units of 64 PN chips, for base stations in a system.

32 **PILOT_PNs** – Pilot Channel PN sequence offset, in units of 64 PN chips, for a base station.

33 **PILOT_PN_PHASE** – Calculated Pilot Channel PN phase, in chips, including the PN
 34 sequence offset and the arrival time relative to the mobile station’s time reference.

35 **PILOT_REPORTs** – Pilot reporting indicator.

36 **POTENTIAL_CDMACHs** – The CDMA Channel number that could potentially be used by the
 37 mobile station.

- 1 **POWER_DOWN_REG_s** – Power down registration enable indicator.
- 2 **POWER_UP_REG_s** – Power up registration enable indicator.
- 3 **PPSMM_PERIOD_s** – The period used in the Periodic Serving Frequency Pilot Report
4 Procedure.
- 5 **PRAT_s** – Data rate of the Paging Channels.
- 6 **P_REV_s** – Protocol revision level supported by a base station.
- 7 **P_REV_IN_USE_s** – Protocol revision level currently in use by a mobile station.
- 8 **PREF_MSID_TYPE_s** – Preferred mobile station identifier field type.
- 9 **PREVIOUS_ACTIVE_PILOT_s** – Identifies the pilot, if any, which was in the Active Set
10 immediately prior to the current pilot in the Active Set, during the current access attempt.
- 11 **PRI_NGHBR_LIST_s** – *Private Neighbor List Message* sent indicator.
- 12 **PRI_NGHBR_PN** – Private Neighbor base station Pilot Channel PN sequence offset in units
13 of 64 PN chips.
- 14 **PRI_NGHBR_REC** – Record containing information about a private neighbor base station
15 (see also PRI_NGHBR_REC_LIST).
- 16 **PRI_NGHBR_REC_LIST** – Private neighbor base station record list. A descriptive structure
17 used to manage the base station's information records about private neighbor base stations
18 (see also PRI_NGHBR_REC).
- 19 **PRI_NGHBR_LST_MSG_SEQ_s** – *Private Neighbor List Message* sequence number.
- 20 **PROBE_BKOFF_s** – Access Channel probe backoff range, in slots.
- 21 **PROBE_PN_RAN_s** – Range for hashing function selection of the delay prior to transmission
22 of Access Channel probes. Value is $\log_2(\text{range} + 1)$.
- 23 **PSIST_s** – Persistence value for the mobile station's overload class.
- 24 **PUF_FREQ_INCL_s** – Flag to indicate whether the mobile station is to transmit a PUF probe
25 on the serving frequency or on a target frequency.
- 26 **PUF_INIT_PWR_s** – Power increase (in dB) of the first PUF pulse in a PUF attempt.
- 27 **PUF_INTERVAL_s** – Number of frames between the start of each PUF probe.
- 28 **PUF_PULSE_SIZE_s** – Duration of a PUF pulse in power control groups.
- 29 **PUF_PWR_STEP_s** – Amount (in dB) by which the mobile station is to increment the power
30 of a PUF pulse above nominal power from one PUF pulse to the next.
- 31 **PUF_SETUP_SIZE_s** – Number of power control groups within a PUF probe before the
32 transmission of the PUF pulse.
- 33 **PUF_SF_CDMABAND_s** – Serving Frequency CDMA band class.
- 34 **PUF_SF_CDMACH_s** – Serving Frequency CDMA Channel number.
- 35 **PUF_TF_CDMABAND_s** – Target Frequency CDMA band class.

- 1 **PUF_TF_CDMACH_s** – Target Frequency CDMA Channel number.
- 2 **PUF_TX_PWR_s** – Mobile station's output power for the PUF pulse.
- 3 **PWR_CNTL_STEP_s** – Power control step size assigned by the base station that the mobile
4 station is to use for closed loop power control.
- 5 **PWR_PERIOD_ENABLE_s** – Forward power control periodic reporting enabled indicator.
- 6 **PWR REP_DELAY_s** – Power report delay. The period that the mobile station waits following
7 an autonomous *Power Measurement Report* before restarting frame counting for power
8 control purposes.
- 9 **PWR REP FRAMES_s** – Power control reporting frame count. The number of frames over
10 which the mobile station is to count frame errors. Value is $2 \times \log_2(\text{frames} / 5)$.
- 11 **PWR REP THRESH_s** – Power control reporting threshold. The number of bad frames to be
12 received in a measurement period before the mobile station is to generate a *Power*
13 *Measurement Report Message*.
- 14 **PWR STEP_s** – Power increment for successive access probes, in units of 1.0 dB.
- 15 **PWR THRESH_ENABLE_s** – Forward power control threshold reporting enabled indicator.
- 16 **QOF ID_s** – Quasi-orthogonal function index on the Supplemental Channel.
- 17 **QPAGECH_s** – Current Quick Paging Channel number.
- 18 **QPCH_CCI_SUPPORTED_s** – Flag to indicate if configuration change indicators are
19 supported on the Quick Paging Channel.
- 20 **QPCH_POWER_LEVEL_PAGE_s** – Relative power level of the transmitted Quick Paging
21 Channel Paging Indicator modulation symbols, relative to the Forward Pilot Channel.
- 22 **QPCH_POWER_LEVEL_CONFIG_s** – Relative power level of the transmitted Quick Paging
23 Channel Configuration Change Indicator modulation symbols, relative to the Forward Pilot
24 Channel.
- 25 **QPCH_RATE_s** – Indicator rate of the current Quick Paging Channel(s).
- 26 **QPCH_SUPPORTED_s** – Flag to indicate if the Quick Paging Channel is supported by the
27 base station.
- 28 **RA** – Random access channel number. The Access Channel number generated (pseudo-
29 randomly) by the mobile station.
- 30 **RAND_s** – Authentication random challenge value.
- 31 **RANDC** – The eight most-significant bits of the random challenge value used by the mobile
32 station.
- 33 **RANDOM_TIME** – Random time. A portion of SYS_TIME used to seed the random number
34 generator.
- 35 **RC_CAP_REQUESTED_s** – Radio Configuration Capability indicator. When set to “1” the
36 mobile station shall include the Radio Configuration capabilities that it supports in the
37 *Origination Message and Page Response Message*.

- 1 **RCCCH_SLOT_s** – See [2].
- 2 **RCCCH_SLOT_OFFSET1_s** – See [2].
- 3 **RCCCH_SLOT_OFFSET2_s** – See [2].
- 4 **REDIRECTION_s** – Service redirection indicator. Set to enabled to indicate that service
5 redirection is currently in effect; otherwise, set to disabled.
- 6 **REDIRECT_REC_s** – Holds the service redirection criteria specified in the redirection record
7 of the most recently received *Global Service Redirection Message* or *Service Redirection
8 Message*.
- 9 **REG_COUNT_s** – The timer-based registration counter.
- 10 **REG_COUNT_MAX_s** – Timer-based registration count limit. The timer-based registration
11 counter expiration value computed from REG_PRD_r.
- 12 **REG_DIST_s** – Registration distance. Distance from last registration that causes a distance-
13 based registration to occur.
- 14 **REG_ENABLED_s** – Autonomous registrations enabled indicator.
- 15 **REG_ENCRYPT RESYNC** – Encryption re-sync required registration indicator.
- 16 **REGISTERED_s** – Mobile station registered indicator.
- 17 **REG_PRD_s** – Registration period. The time interval between timer-based registrations.
18 Value is $4 \times \log_2(\text{time} / 0.08 \text{ s})$.
- 19 **REG_PSIST_s** – Persistence modifier for registration accesses (except ordered registrations).
- 20 **REG_ZONE_s** – Registration zone number of the base station.
- 21 **REJECT_UZID_s** – User Zone identifier of the User Zone rejected by the base station.
- 22 **RESELECT_INCLUDED_s** – System reselection information included indicator. When this is
23 set to ‘1’, the system reselection procedure is enabled.
- 24 **RESUME_PREAMBLE_s** – A storage variable in the mobile station that contains the size of
25 the preamble that shall be transmitted on a Reverse Supplemental Code Channel at the
26 beginning of transmission on a Reverse Supplemental Code Channel when resuming
27 transmission following an interruption when discontinuous transmission is occurring.
- 28 **RETRY_DELAY_{s[i]}** – A storage variable in the mobile station that contains the system time
29 before which the mobile station may not transmit a specific message. The type of message
30 that cannot be transmitted is specified by RETRY_TYPE, represented here by i. A
31 RETRY_DELAY_{s[i]} value of 0 indicates no retry delay is in effect, and a value of ‘11111111’
32 indicates an infinite retry delay.
- 33 **RETRY_DELAY_UNIT_s** – The units for the value of RETRY_DELAY_s. Possible values are
34 1000ms and 60000ms.
- 35 **RETRY_DELAY_VALUE_s** – The unitless value of the retry delay.
- 36 **RETRY_TYPE_s** – The retry delay type. It specifies the type of message to which the retry
37 delay value applies. If set to a value of 0, it indicates that all retry delay values should be

- 1 cleared.
- 2 **RETURN_CAUSE_s** – Reason for the mobile station registering or accessing the system.
- 3 **RETURN_IF_FAIL_s** – Return if fail indicator. Set to ‘1’ to indicate that mobile station is to
4 return to the system from which it was redirected if it fails to acquire service on a system
5 using specified redirection criteria. Otherwise, set to ‘0’.
- 6 **RETURN_IF_HANDOFF_FAIL_s** – Return if handoff fail indicator. Indicates if the mobile
7 station is to resume using the Active Set on the Serving Frequency following an
8 unsuccessful hard handoff attempt.
- 9 **REV_DTX_DURATION_s** – Maximum duration of time in units of 20 ms that the mobile
10 station is allowed to stop transmitting on a Reverse Supplemental Code Channel ~~or Reverse~~
11 ~~Supplemental Channel~~ within the reverse assignment duration.
- 12 **REV_DURATION_s** – A stored variable in the mobile station that contains the duration (in
13 units of 80 ms) of the Reverse Supplemental Code Channel transmission that will begin at
14 time REV_START_TIME_s.
- 15 **REV_FCH_GATING_MODE_s** – The reverse Fundamental Traffic Channel gating mode in
16 Radio Configurations 3, 4, 5, and 6 where 50% of the PCGs in the 1500 bps and 1800 bps
17 frames are gated off (see 2.1.3.7.8 of C.P0002-A). Set to ‘1’ if the mobile station is operating
18 in the reverse fundamental channel gating mode.
- 19 **REV_FCH_RC_s** – Reverse Fundamental Channel Radio Configuration.
- 20 **REV_FRAME_40_MAX_RATE_s** – The maximum data rate for the mobile station's
21 transmission at 40 ms frame length on the Reverse Supplemental Channel.
- 22 **REV_FRAME_80_MAX_RATE_s** – The maximum data rate for the mobile station's
23 transmission at 80 ms frame length on the Reverse Supplemental Channel.
- 24 **REV_LINKED_HDM_SEQ_s** – Storage variable containing the most recent reverse sequence
25 number of the *General Handoff Direction Message* to which a *Supplemental Channel*
26 *Assignment Message* reverse assignment was linked.
- 27 **REV_PWR_CNTL_DELAY_s** – The reverse link power control delay for the reverse
28 fundamental channel gating mode in Radio Configurations 3, 4, 5, and 6 and the gated
29 preamble transmission on the Enhanced Access Channel or the Reverse Common Control
30 Channel. The delay is the time between the end of the reverse link PCG and the beginning
31 of the forward link PCG minus one, when the round trip delay is zero.
- 32 **REV_RC_s** – Reverse Channel Radio Configuration.
- 33 **REV_SCH_DTX_DURATION_s** – Maximum duration of time in units of 20 ms that the mobile
34 station is allowed to stop transmitting on a Reverse Supplemental Channel within the
35 reverse assignment duration.
- 36 **REV_SCH_DURATION_s** – A stored variable in the mobile station which contains the
37 duration of the Reverse Supplemental Channel transmission which will begin at time
38 REV_SCH_START_TIME_s.
- 39 **REV_SCH_FRAME_LENGTH_s** – The Reverse Supplemental Channel frame length.

1 **REV SCH RATE_s** – The rate of the Reverse Supplemental Channel.

2 **REV_SCH_START_TIME_s** – A stored variable in the mobile station which contains the
3 System Time, in units of time specified by START_TIME_UNIT_s, (modulo 32) at which the
4 mobile station shall start (or resume) processing Reverse Supplemental Channels.

5 **REV_START_TIME_s** – A stored variable in the mobile station that contains the next 80 ms
6 frame boundary (modulo 64) on which the mobile station is assigned to start Reverse
7 Supplemental Code Channel transmission.

8 **REV WALSH ID_s** – Reverse Supplemental Channel Walsh cover Identifier.

9 **RN_HASH_KEY_s** – Name of an internal variable having the same value as the mobile
10 station's ESN. This variable is used by procedures defined in [3].

11 **ROAM_INDI_s** – Enhanced roaming indicator used for mobile station roaming condition
12 display.

13 **RS** – Inter-probe sequence backoff. The delay in slots generated (pseudorandomly) by the
14 mobile station following an unsuccessful access probe sequence or prior to the first access
15 probe in a response attempt.

16 **RT** – Inter-probe backoff. The delay in slots generated (pseudorandomly) by the mobile
17 station following an unacknowledged access probe.

18 **SCC_s** – SAT color code for analog channel assignment and CDMA-to-analog handoff.

19 **SCAM_FOR_DURATION_MODE_s** – Indicator for a specific or an indefinite Forward
20 Supplemental Code Channel assignment duration.

21 **SCAM_FOR_ORDER_s** – The stop or start command set by a *Supplemental Channel
Assignment Message* that is linked to a *General Handoff Direction Message*.

23 **SCAM_REV_DURATION_MODE_s** – Indicator for a specific or an indefinite Reverse
24 Supplemental Code Channel assignment duration.

25 **SCH_BAD_FRAMES_s** – Forward Supplemental Channel bad frames count. The number of
26 received bad forward Supplemental Channel frames.

27 **SCH_TOT_FRAMES_s** – Total forward Supplemental Channel frames received. The total
28 number of received forward Supplemental Channel frames, counted for Forward Traffic
29 Channel power control.

30 **SYNC_ID_s** – Service Configuration Synchronization Identifier. This is a ~~16-bit CRC variable
length computed over the entire identifier corresponding to the~~ Service Configuration
31 information record and Non-negotiable Service Configuration information record ~~that may
32 be stored by the mobile station and The SYNC ID value is used for by the base station to
33 determine whether these two information records should may be included omitted in from
34 the Service Connect Message sent by the base station to the mobile station. The mobile
35 station generates this parameter based on the Service Configuration information record and
36 Non-negotiable Service Configuration information record stored at the mobile station (if
37 stored), and sends it to the base station in the Origination Message or the Page Response
38 Message. The base station computes this parameter based on these two information records
39 targeted to be sent to the mobile station. If the computed value matches the one sent by~~

1 | the mobile station, then Based on the value of SYNC ID sent by the mobile station, base
 2 | station doesmay not send these two information records over the air and expects the mobile
 3 | station to start using the stored ones.

4 | **SCRM_SEQ_NUM_s** – Storage variable containing the most recently transmitted
 5 | *Supplemental Channel Request Message* sequence number.

6 | **SEARCH_MODE_s** – Search mode to be used in a periodic search on the Candidate
 7 | Frequency.

8 | **SEARCH_OFFSET_s** – Time offset of the start of the first search from the action time of the
 9 | *Candidate Frequency Search Request Message* or the *Candidate Frequency Search Control*
 10 | *Message* that starts a search.

11 | **SEARCH_PERIOD_s** – Period for search on the Candidate Frequency.

12 | **SEARCH_PRIORITY_s** – Neighbor Pilot Channel search priority.

13 | **SEARCH_PRIORITY_INCL_s** – Search priorities included indicator.

14 | **SEARCH_TIME_RESOLUTION_s** – Unit of delay used in the *Candidate Frequency Search Report Message* to report the total and maximum times away from the Serving Frequency.

16 | **SENDING_RAND_s** – ANSI-41 RAND Message sent indicator.

17 | **SERV_NEG_s** – Service negotiation indicator. Indicates whether the mobile station is to use
 18 | service negotiation or service option negotiation.

19 | **SERV_REQ_NUM_s** – Service request sequence number. Sequence number to use when
 20 | requesting a new service configuration.

21 | **SERVSYS_s** – Selected serving system indicator for Band Class 0. Set to SYS_A if the mobile
 22 | station operates in system A; otherwise, set to SYS_B.

23 | **SETTING_SEARCH_WIN** – SRCH_WIN_NGHBR Setting flag. Set to ‘1’ if the mobile station
 24 | shall set the SRCH_WIN_NGHBR field of each NGHBR_REC to SEARCH_WIN_N_s for all
 25 | NGHBR_SET_SIZE_s entries upon receiving the *System Parameters Message*.

26 | **SF_ADD_INTERCEPT_s** – Intercept of the handoff add criterion for the Serving Frequency,
 27 | stored during hard handoff.

28 | **SF_CDMABAND_s** – Serving Frequency CDMA band class, stored during hard handoff.

29 | **SF_CDMACH_s** – Serving Frequency CDMA Channel number, stored during hard handoff.

30 | **SF_CODE_CHAN_LIST_s** – Serving Frequency Code Channel List, stored during hard
 31 | handoff.

32 | **SF_DROP_INTERCEPT_s** – Intercept of the handoff drop criterion for the Serving Frequency,
 33 | stored during hard handoff.

34 | **SF_ENCRYPT_MODE_s** – Message encryption indicator for the Serving Frequency, stored
 35 | during hard handoff.

36 | **SF_FRAME_OFFSET_s** – Traffic Channel frame offset used on the Serving Frequency, stored
 37 | during hard handoff.

- 1 **SF_NOM_PWR_s** – Nominal transmit power offset used on the Serving Frequency, stored
2 during hard handoff.
- 3 **SF_NOM_PWR_EXT_s** – Extended nominal transmit power offset indicator for the Serving
4 Frequency, stored during hard handoff.
- 5 **SF_P_REV_s** – Protocol revision level supported by the base station on the Serving
6 Frequency.
- 7 **SF_P_REV_IN_USE_s** – Protocol revision level currently used by the mobile station on the
8 Serving Frequency.
- 9 **SF_PRIVATE_LCM_s** – Private long code mask indicator for the Serving Frequency, stored
10 during hard handoff.
- 11 **SF_SERV_NEG_s** – Service negotiation indicator for the Serving Frequency, stored during
12 hard handoff.
- 13 **SF_SERVICE_CONFIG_s** – Service configuration (service configuration record and non-
14 negotiable service configuration record) for the Serving Frequency.
- 15 **SF_SOFT_SLOPE_s** – Slope of the handoff add/drop criterion for the Serving Frequency,
16 stored during hard handoff.
- 17 **SF_SRCH_WIN_A_s** – Search window size for the Active Set and Candidate Set used on the
18 Serving Frequency, stored during hard handoff.
- 19 **SF_SRCH_WIN_N_s** – Search window size for the Neighbor Set used on the Serving
20 Frequency, stored during hard handoff.
- 21 **SF_SRCH_WIN_R_s** – Search window size for the Remaining Set used on the Serving
22 Frequency, stored during hard handoff.
- 23 **SF_T_ADD_s** – Pilot detection threshold used on the Serving Frequency, stored during hard
24 handoff.
- 25 **SF_T_COMP_s** – Active Set versus Candidate Set comparison threshold used on the Serving
26 Frequency, stored during hard handoff.
- 27 **SF_T_DROP_s** – Pilot drop threshold used on the Serving Frequency, stored during hard
28 handoff.
- 29 **SF_T_TDROP_s** – Pilot drop timer value used on the Serving Frequency, stored during hard
30 handoff.
- 31 **SF_TOTAL_EC_THRESH_s** – Threshold for total E_c of pilots in the Serving Frequency Active
32 Set used in the Candidate Frequency periodic search procedures.
- 33 **SF_TOTAL_EC_IO_THRESH_s** – Threshold for total E_c/I_o of pilots in the Serving Frequency
34 Active Set used in the Candidate Frequency periodic search procedures.
- 35 **SID_s** – System identifier.
- 36 **SID_NID_LIST_s** – Registration SID, NID list. The SID, NID pairs in which the mobile station
37 has registered.

- 1 **SLOT_CYCLE_INDEX_s** – Slot cycle index. Equal to the smaller of SLOT_CYCLE_INDEX_p
 2 and the received maximum slot cycle index.
- 3 **SLOT_NUM** – Paging Channel or Forward Common Control Channel slot number.
- 4 **SOFT_SLOPE_s** – The slope in the inequality criterion for adding a pilot to the Active Set, or
 5 dropping a pilot from the Active Set.
- 6 **SO_REQ_s** – Service option request number. The number of the service option requested by
 7 the mobile station during service option negotiation.
- 8 **SR1_BRAT_NON_TD_s** – Spreading Rate 1 Broadcast data rate with no transmit diversity.
- 9 **SR1_BRAT_TD_s** – Spreading Rate 1 Broadcast data rate with transmit diversity.
- 10 **SR1_CRAT_NON_TD_s** – Spreading Rate 1 coding rate with no transmit diversity.
- 11 **SR1_CRAT_TD_s** – Spreading Rate 1 coding rate with transmit diversity.
- 12 **SR1_TD_MODE_s** – Spreading Rate 1 transmit diversity mode in support of OTD or STS.
- 13 **SR1_TD_LEVEL_s** – Spreading Rate 1 transmit diversity power level.
- 14 **SR3_BRAT_s** – Data rate of the Broadcast Control Channel on SR3 frequencies.
- 15 **SR3_PRIMARY_PILOT_s** – Frequency offset of the primary SR3 pilot.
- 16 **SR3_PILOT_POWER1_s** – The power level of the primary pilot with respect to the pilot on the
 17 lower frequency of the two remaining SR3 frequencies.
- 18 **SR3_PILOT_POWER2_s** – The power level of the primary pilot with respect to the pilot on the
 19 higher frequency of the two remaining SR3 frequencies.
- 20 **SRCH_OFFSET_INCL_s** – Neighbor pilot search window offset included indicator.
- 21 **SRCH_OFFSET_NGHBR_s** – Neighbor pilot search window offset.
- 22 **SRCH_WIN_A_s** – Search window size for the Active Set and Candidate Set.
- 23 **SRCH_WIN_NGHBR_s** – Neighbor Pilot Channel search window size.
- 24 **SRCH_WIN_NGHBR_INCL_s** – Neighbor Pilot Channel search window size included indicator.
- 25 **SRCH_WIN_N_s** – Search window size for the Neighbor Set.
- 26 **SRCH_WIN_R_s** – Search window size for the Remaining Set.
- 27 **START_TIME_UNIT_s** – A stored variable in the mobile station which contains the time unit
 28 used for determining FOR_SCH_START_TIME and REV_SCH_START_TIME on Supplemental
 29 Channels.
- 30 **SYS_PAR_MSG_SEQ_s** – *System Parameters Message* sequence number.
- 31 **SYS_TIME_s** – Current value of CDMA system time as received in the *Sync Channel
 32 Message*.
- 33 **TA** – Acknowledgment response timeout.
- 34 **T_ADD_s** – Pilot detection threshold. The stored value is a positive value in units of 0.5 dB.

- 1 **T_COMP_s** – Active Set versus Candidate Set comparison threshold. The stored value is a
2 positive value in units of 0.5 dB.
- 3 **T_DROP_s** – Pilot drop threshold. The stored value is a positive value in units of 0.5 dB.
- 4 **TAG_s** – Transaction identifier. This is a 4-bit parameter maintained by the mobile station
5 which is used to uniquely identify a new call origination (via an *Enhanced Origination*
6 *Message*) by the mobile station. When the mobile station is to send an *Enhanced Origination*
7 *Message*, the mobile station increments the stored value of TAG and includes it in the
8 message.
- 9 **TAG_OUTSTANDING_LIST** – List of outstanding TAG values. This corresponds to those
10 values of TAG sent in the *Enhanced Origination Message* which have neither been accepted
11 by the base station (by assigning the requested call) nor rejected by the base station.
- 12 **TEMP_SUB_s** – User Zone temporary subscription flag.
- 13 **TF_CDMABAND_s** – Target Frequency CDMA band class. The CDMA band class specified in
14 the *Extended Handoff Direction Message* or the *General Handoff Direction Message*.
- 15 **TF_CDMACH_s** – Target Frequency CDMA Channel number. The CDMA Channel number
16 specified in the *Extended Handoff Direction Message* or the *General Handoff Direction*
17 *Message*.
- 18 **TF_RESET_FPC_s** – Flag to initialize the Forward Traffic Channel power control counters on
19 the Target Frequency.
- 20 **TF_RESET_L2_s** – Flag to reset acknowledgment procedures on the Target Frequency.
- 21 **TF_T_ADD_s** – Pilot detection threshold to be used on the Target Frequency. The stored
22 value is a positive value in units of 0.5 dB.
- 23 **TF_WAIT_TIME_s** – Maximum time that the mobile station may wait to receive a period of
24 ($N_{11m} \times 20$) ms with sufficient signal quality (e.g. good frames) on the CDMA Target
25 Frequency.
- 26 **TMSI_ZONE_s** – TMSI zone number of the base station.
- 27 **TMSI_ZONE_LEN_s** – The number of octets in TMSI zone.
- 28 **T_MULCHAN_s** – ~~A storage variable in the mobile station that contains the threshold offset~~
29 ~~that the mobile station is to use when reporting neighbor pilot strength measurements in a~~
30 ~~Supplemental Channel Request Message~~
31 ~~Reverse Supplemental Code Channel neighbor pilot strength measurement offset~~. The stored value is a positive value in units of 0.5 dB.
- 32 **TOTAL_PUF_PROBES_s** – Maximum number of PUF probes transmitted in a PUF attempt.
- 33 **TOTAL_ZONES_s** – Number of registration zones to be retained in ZONE_LIST_s.
- 34 **TOT_FRAMES_s** – Total forward Fundamental Channel frames received. The total number
35 of received forward Fundamental Channel frames, counted for Forward Traffic Channel
36 power control.
- 37 **T_TDROPS_s** – Pilot drop timer value.

- 1 **USE_FOR_HDM_SEQs** – Storage variable containing a flag indicating a pending
2 *Supplemental Channel Assignment Message* forward assignment that is linked to a *General*
3 *Handoff Direction Message*.
- 4 **USE_REV_HDM_SEQs** – Storage variable containing a flag indicating a pending
5 *Supplemental Channel Assignment Message* reverse assignment that is linked to a *General*
6 *Handoff Direction Message*.
- 7 **USE_T_ADD_ABORTs** – A storage variable in the mobile station that contains the Reverse
8 Supplement Code Channel assignment T_ADD abort indicator.
- 9 **USE_TMSIs** – Base station's preference of the use of TMSI.
- 10 **USER_ZONE_IDs** – *User Zone Identification Message* sent indicator.
- 11 **USER_ZONE_ID_MSG_SEQs** – *User Zone Identification Message* sequence number.
- 12 **UZ_EXIT_IN_USEs** – The User Zone Exit parameter that the mobile station received from
13 the *User Zone Identification Message* broadcast by the last base station of the old user zone.
- 14 **UZ_EXIT_RCVDs** – The User Zone Exit parameter that the mobile station just received from
15 the *User Zone Identification Message* broadcast by the currently serving base station.
- 16 **UZIDs** – User Zone identifier.
- 17 **UZ_REC** – Record containing information about a User Zone broadcast by the base station
18 (see also UZ_REC_LIST).
- 19 **UZ_REC_LIST** – Broadcast User Zone record list. A descriptive structure used to manage
20 the base station's information records about broadcast User Zones (see also UZ_REC).
- 21 **UZ_REVs** – User Zone update revision number.
- 22 **VMACs** – Analog voice mobile station attenuation code for analog channel assignment or
23 CDMA-to-analog handoff.
- 24 **ZONE_LISTs** – Registration zone list. List of zones in which the mobile station has
25 registered.
- 26 **ZONE_TIMERs** – Zone timer length.

1.2 Signaling Architecture

Layer 3 signaling for cdma2000 is modeled as follows:

- **Protocol Layer.** Layer 3 generates Layer 3 PDUs and passes these PDUs to Lower Layers, where proper encapsulation into Lower Layer PDUs is performed. On the receiving end, Lower Layer PDUs are decapsulated and the resulting SDUs are sent from Lower Layers to Layer 3 for processing.
- **Service Access Points.** SAPs and corresponding communication primitives are defined between the Layer 3 and Lower Layers over the data plane. No SAPs are defined for communications through the control plane.

1.3 Signaling and Functionality

1.3.1 General Architecture

The general architecture is presented in Figure 1.3.1-1.

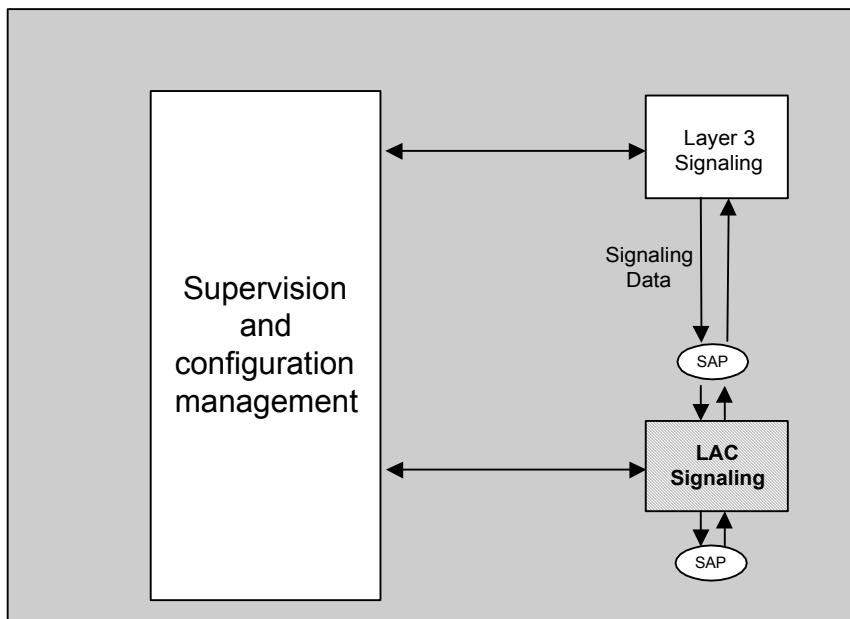


Figure 1.3.1-1. cdma2000 Signaling – General Architecture

1.3.2 Interface to Layer 2

The interface between Layer 3 and Layer 2 is a Service Access Point (SAP). At the SAP, Layer 3 and Layer 2 exchange Service Data Units (SDU) and interface control information in the form of Message Control and Status Blocks (MCSB) using a set of primitives.

1.3.2.1 Message Control and Status Block (MCSB)

The MCSB is a parameter block for the defined primitives, containing relevant information about an individual Layer 3 message (PDU), as well as instructions on how the message

1 may be handled or how it is to be (for transmission), or was (for reception), processed by
 2 Layer 2. The MCSB is a conceptual construct and is not subject to detailed specification in
 3 this document; however, it is envisioned the MCSB will contain information such as:

- 4 • The MSG_TAG. If the message is generated in response to a previously received
 5 message, the MSG_TYPE of the previously received message is also stored.
- 6 • The length of the PDU.
- 7 • Page record length parameters, i.e., values of the SDU_INCLUDED field for a *Mobile*
 8 *Station-addressed* record in a *General Page Message*, the
 9 EXT_MS_SDU_LENGTH_INCL and EXT_MS_SDU_LENGTH fields for a *Mobile*
 10 *Station-addressed* record in a *Universal Page Message*, and the
 11 EXT_BCAST_SDU_LENGTH_IND and EXT_BCAST_SDU_LENGTH fields for an
 12 *Enhanced Broadcast* record sent in a *General Page Message* or a *Universal Page*
 13 *Message*.
- 14 • A unique instance identifier associated with the message, which enables
 15 identification of a message for notifications of delivery/non-delivery or recovery
 16 procedures.
- 17 • Whether the message should be acknowledged at Layer 2 (i.e., delivered in assured
 18 mode or unassured mode).
- 19 • Whether notification of delivery is required.
- 20 • The identity of the addressee for the message.
- 21 • Whether the PDU delivered to Layer 3 is a duplicate (in cases where Layer 2 does
 22 not discard duplicates).
- 23 • Data needed by the authentication procedures (e.g., the CHARi fields of the
 24 *Origination Message*).
- 25 • Relevant PDU classification (e.g., registrations, originations), where processing at
 26 Layer 2 is sensitive to the kind of PDU being transferred.
- 27 • The encryption status of the logical channel.
- 28 • CDMA System Time corresponding to the frame in which the first or last bit of a
 29 message was received.
- 30 • Transmission instructions for Layer 2, such as an instruction to send a message
 31 with a certain priority (before, after, or by interrupting the transmission of other
 32 messages), an instruction regarding supervision, and so on.
- 33 • Abnormal conditions indications from Layer 2.

34 1.3.2.2 Interface Primitives

35 The following primitives are defined for communication between the Layer 3 and Layer 2:

36 | Name: L2-Data.Request

1 Type: Request
 2 Direction: Layer 3 to Layer 2
 3 Parameters: PDU, MCSB
 4 Action: The PDU is handed to Layer 2 for delivery across the radio interface.
 5
 6 Name: **L2-Data.Confirm**
 7 Type: Confirm
 8 Direction: Layer 2 to Layer 3
 9 Parameters: MCSB
 10 Action: Reception of the specified (in the MCSB) transmitted PDU was acknowledged
 11 at Layer 2 by the addressee.
 12
 13 Name: **L2-Data.Indication**
 14 Type: Indication
 15 Direction: Layer 2 to Layer 3
 16 Parameters: PDU, MCSB
 17 Action: The received PDU is handed to Layer 3.
 18
 19 Name: **L2-Condition.Notification**
 20 Type: Indication
 21 Direction: Layer 2 to Layer 3
 22 Parameters: MCSB
 23 Action: Layer 3 is notified of a relevant event (e.g. abnormal condition) detected at
 24 Layer 2. Details are indicated via the MCSB.
 25
 26 Name: **L2-Supervision.Request**
 27 Type: Request
 28 Direction: Layer 3 to Layer 2
 29 Parameters: MCSB
 30 Action: Layer 2 executes a control command as directed by Layer 3. This could be,
 31 for example, an order to abandon retransmission of a message or an order
 32 for local reset for the message sequence number, acknowledgment sequence
 33 number and duplicate detection.

1 1.3.3 Reserved

2

3 1.3.4 Functional Description

4 In the Data Plane, Layer 3 originates and terminates signaling data units according to the
5 semantic and timing of the communication protocol between the base station and the
6 mobile station. From a semantic point of view the signaling data units are referred to as
7 “messages” (or “orders”). From a protocol point of view, the signaling data units are PDUs.
8 In general, the language of this specification does not explicitly distinguish between the
9 terms “PDU” and “Message”. It is considered that the context provides enough information
10 to allow the reader to make the appropriate distinctions.

11 1.3.5 PDU Transmission and Reception

12 Layer 3 employs the services offered at the interface with Layer 2 to transfer PDUs to and
13 from the 4Layer 3 entity.

14 When requesting the transmission of a PDU, Layer 3 will typically specify whether the
15 transfer will be performed in *assured mode* or in *unassured mode* (for example, by setting
16 the proper parameters in the MCSB argument of the L2-Data.Request primitive). For
17 transmission in assured mode, 4Layer 3 may specify if *confirmation of delivery* of the PDU is
18 required.

19 Layer 2 guarantees that an assured mode PDU received from the transmitting Layer 3
20 entity is delivered to the receiving Layer 3 entity. Each assured mode PDU is delivered to
21 the receiving Layer 3 entity only once and without errors. Additionally, if the transmitting
22 Layer 3 entity requests confirmation of delivery of an assured mode PDU, Layer 2 will send
23 an indication to the transmitting Layer 3 entity (for example by using the L2-Data.Confirm
24 primitive) when Layer 2 receives an acknowledgment for that PDU. If Layer 2 is not able to
25 deliver an assured mode PDU, it sends an indication of the failure to Layer 3 which can
26 then take corrective action.

27 Layer 2 does not guarantee that an unassured mode PDU received from the transmitting
28 Layer 3 entity is delivered to the receiving Layer 3 entity. Thus, Layer 2 acknowledgments
29 may not be required for unassured mode PDUs. To increase the probability of delivery of
30 unassured mode PDUs, Layer 3 may request Layer 2 to send those PDUs multiple times in
31 quick repeat sequence and rely on the duplicate detection capabilities of the receiver to
32 achieve uniqueness of delivery.

33 Layer 3 can also request Layer 2 to perform a reset of the Layer 2 ARQ procedures (for
34 example, by using the L2-Supervision.Request primitive).

2. REQUIREMENTS FOR MOBILE STATION CDMA OPERATION

This section defines requirements that are specific to CDMA mobile station equipment and operation. A CDMA mobile station may support operation in one or more band classes.

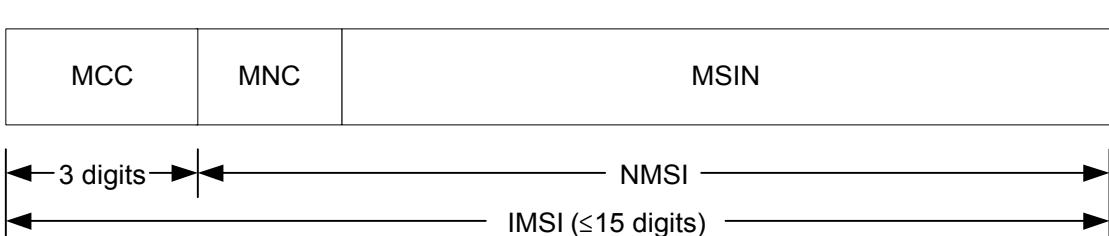
2.1 Reserved

2.2 Reserved

2.3 Security and Identification

2.3.1 Mobile Station Identification Number

Mobile stations operating in the CDMA mode are identified by the International Mobile Station Identity (IMSI).¹ Mobile Stations shall have two different identifiers, IMSI_T and IMSI_M. The IMSI consists of up to 15 numerical characters (0-9). The first three digits of the IMSI are the Mobile Country Code (MCC), and the remaining digits are the National Mobile Station Identity (NMSI). The NMSI consists of the Mobile Network Code (MNC) and the Mobile Station Identification Number (MSIN). The IMSI structure is shown in Figure 2.3.1-1.



MCC	Mobile Country Code
MNC	Mobile Network Code
MSIN	Mobile Station Identifier Number
NMSI	National Mobile Station Identity
IMSI	International Mobil Station Identity

Figure 2.3.1-1. IMSI Structure

An IMSI that is 15 digits in length is called a class 0 IMSI (the NMSI is 12 digits in length); an IMSI that is less than 15 digits in length is called a class 1 IMSI (the NMSI is less than 12 digits in length).

¹ See [18] CCITT Blue Book, Volume II Faseicle II.2, Recommendation E.212, November 1988.

1 IMSI_M is an IMSI that contains a MIN in the lower ten digits of the NMSI. An IMSI_M can
 2 be a class 0 or a class 1 IMSI. If the IMSI_M is not programmed, the mobile station shall
 3 set the four least-significant digits of the IMSI_M to the value of the ESN_p, converted
 4 directly from binary to decimal, modulo 10000, and the mobile station shall set the other
 5 digits to 0.

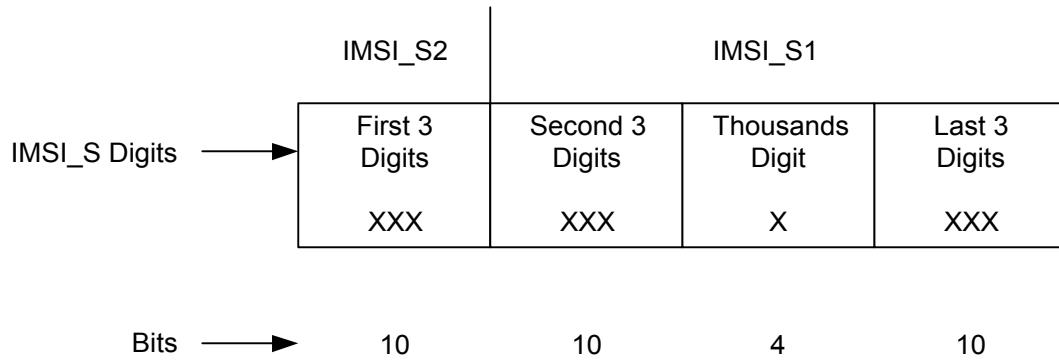
6 IMSI_T is an IMSI that is not associated with the MIN assigned to the mobile station. An
 7 IMSI_T can be a class 0 or class 1 IMSI. If the IMSI_T is not programmed, the mobile
 8 station shall set the four least-significant digits of the IMSI_T to the value of the ESN_p,
 9 converted directly from binary to decimal, modulo 10000, and the mobile station shall set
 10 the other digits to 0.

11 When operating in the CDMA mode the mobile station shall set its operational IMSI value,
 12 IMSI_O, to either the IMSI_M or the IMSI_T depending on the capabilities of the base
 13 station (See 2.6.2.2.5).

14 An IMSI_S is a 10-digit (34-bit) number derived from the IMSI. When an IMSI has ten or
 15 more digits, IMSI_S is equal to the last ten digits. When an IMSI has fewer than ten digits,
 16 the least significant digits of IMSI_S are equal to the IMSI and zeros are added to the most
 17 significant side to obtain a total of ten digits. A 10-digit IMSI_S consists of 3- and 7-digit
 18 parts, called IMSI_S2 and IMSI_S1, respectively, as illustrated in Figure 2.3.1-2. IMSI_S is
 19 mapped into a 34-bit number (see 2.3.1.1). The IMSI_S derived from IMSI_M is designated
 20 IMSI_M_S. The IMSI_S derived from IMSI_T is designated IMSI_T_S. The IMSI_S derived
 21 from IMSI_O is designated IMSI_O_S.

22 The mobile station shall have memory to store the 34-bit IMSI_M_S_p and the 34-bit
 23 IMSI_T_S_p. IMSI_M_S_p is represented by the 10-bit IMSI_M_S2_p and the 24 bit
 24 IMSI_M_S1_p. IMSI_T_S_p is represented by the 10-bit IMSI_T_S2_p and the 24 bit
 25 IMSI_T_S1_p.

26

27
28

29 **Figure 2.3.1-2. IMSI_S Binary Mapping**

31 When an IMSI has 12 or more digits, IMSI_11_12 is equal to the 11th and 12th digits of the
 32 IMSI. When an IMSI has fewer than 12 digits, digits with a value equal to zero are added to

1 the most significant side to obtain a total of 12 digits and the IMSI_11_12 is equal to the
 2 11th and 12th digits of the resulting number.

3 IMSI_11_12 is encoded as described in 2.3.1.2. The mobile station shall have memory to
 4 store the 7-bit IMSI_M_11_12_p and the 7-bit IMSI_T_11_12_p.

5 The 3-digit MCC is encoded as described in 2.3.1.3. The mobile station shall have memory
 6 to store the 10-bit MCC_M_p and the 10-bit MCC_T_p.

7 If the mobile station has a class 1 IMSI_T, or IMSI_M, it shall have memory to store
 8 IMSI_T_ADDR_NUM_p and IMSI_M_ADDR_NUM_p. IMSI_T_ADDR_NUM_p is equal to the
 9 number of digits in the NMSI² minus four. IMSI_M_ADDR_NUM_p is equal to the number of
 10 digits in the NMSI of the IMSI_M minus four.

11 2.3.1.1 Encoding of IMSI_M_S and IMSI_T_S

12 The IMSI_M_S and IMSI_T_S binary mapping is defined as follows:

- 13 1. The first three digits of the IMSI_M_S and the first three digits of the IMSI_T_S are
 14 mapped into ten bits (corresponding to IMSI_M_S2_p and IMSI_T_S2_p, respectively)
 15 by the following coding algorithm:
 - 16 a. Represent these three digits as D₁ D₂ D₃ with the digit equal to zero being given
 17 the value of ten.
 - 18 b. Compute $100 \times D_1 + 10 \times D_2 + D_3 - 111$.
 - 19 c. Convert the result in step b to binary by the standard decimal-to-binary
 20 conversion as shown in Table 2.3.1.1-1.

21

² It is assumed that the number of digits in NMSI is greater than three.

1

Table 2.3.1.1-1. Decimal to Binary Conversion Table

Decimal Number	Binary Number
0	0000000000
1	0000000001
2	0000000010
3	0000000011
4	0000000100
•	•
•	•
•	•
998	1111100110
999	1111100111

2

- 3 2. The second three digits of IMSI_M_S and the second three digits of IMSI_T_S are
 4 mapped into the ten most significant bits of IMSI_M_S1_p and IMSI_T_S1_p,
 5 respectively, by the coding algorithm indicated in 1.
- 6 3. The last four digits of IMSI_M_S and the last four digits of IMSI_T_S are mapped into
 7 the 14 least significant bits of IMSI_M_S1_p and IMSI_T_S1_p, respectively, as follows:
 8 a. The thousands digit is mapped into four bits by a Binary-Coded-Decimal (BCD)
 9 conversion, as shown in Table 2.3.1.1-2.
 10 b. The last three digits are mapped into ten bits by the coding algorithm indicated
 11 in 1.

12

Table 2.3.1.1-2. BCD Mapping

Decimal Digit	Binary Number
1	0001
2	0010
3	0011
4	0100
5	0101
6	0110
7	0111
8	1000
9	1001
0	1010

The following example illustrates the $\text{IMSI}_{\text{T}} \text{S2}_p$ and $\text{IMSI}_{\text{T}} \text{S1}_p$ calculation procedure. Let the IMSI_{T} be the 9-digit number 123456789. Since the IMSI_{T} has fewer than ten digits, the nine least significant digits of the $\text{IMSI}_{\text{T}} \text{S}$ are equal to the IMSI_{T} digits and the most significant $\text{IMSI}_{\text{T}} \text{S}$ digit is set to zero. So the 10-digit $\text{IMSI}_{\text{T}} \text{S}$ is 012 345 6 789. $\text{IMSI}_{\text{T}} \text{S2}_p$ and $\text{IMSI}_{\text{T}} \text{S1}_p$ are calculated as follows:

- $\text{IMSI}_{\text{T}} \text{S2}_p$. The ten-bit $\text{IMSI}_{\text{T}} \text{S2}_p$ is derived from the first three digits of the $\text{IMSI}_{\text{T}} \text{S}$ (i.e., 012):

$$\text{a. } D_1 = 10; D_2 = 1; D_3 = 2.$$

$$\text{b. } 100 \times D_1 + 10 \times D_2 + D_3 - 111 = 100 \times 10 + 10 \times 1 + 2 - 111 = 901.$$

c. 901 in binary is '11 1000 0101'.

Therefore, $\text{IMSI}_{\text{T}} \text{S2}_p$ is '11 1000 0101'.

- $\text{IMSI}_{\text{T}} \text{S1}_p$. The ten most significant bits of $\text{IMSI}_{\text{T}} \text{S1}_p$ are derived from the second three digits of the $\text{IMSI}_{\text{T}} \text{S}$ (i.e., 345):

$$\text{a. } D_1 = 3; D_2 = 4; D_3 = 5.$$

$$\text{b. } 100 \times D_1 + 10 \times D_2 + D_3 - 111 = 100 \times 3 + 10 \times 4 + 5 - 111 = 234.$$

c. 234 in binary is '0011 1010 10'.

The next four most significant bits of $\text{IMSI}_{\text{T}} \text{S1}_p$ are derived from the thousands digit of the $\text{IMSI}_{\text{T}} \text{S}$ (i.e., 6) by BCD conversion: 6 in BCD is '0110'.

The ten least significant bits of $\text{IMSI}_{\text{T}} \text{S1}_p$ are derived from the last three digits of the $\text{IMSI}_{\text{T}} \text{S}$ (i.e., 789):

$$\text{a. } D_1 = 7; D_2 = 8; D_3 = 9.$$

$$\text{b. } 100 \times D_1 + 10 \times D_2 + D_3 - 111 = 100 \times 7 + 10 \times 8 + 9 - 111 = 678.$$

1 c. 678 in binary is '10 1010 0110'.

2 Therefore, IMSI_T_S1_p is '0011 1010 1001 1010 1010 0110'.

3 2.3.1.2 Encoding of IMSI_M_11_12 and IMSI_T_11_12

4 The IMSI_M_11_12 and IMSI_T_11_12 binary mapping is defined as follows:

5 1. Represent the 11th digit as D₁₁ and the 12th digit as D₁₂ with the digit equal to
6 zero being given the value of ten.

7 2. Compute $10 \times D_{12} + D_{11} - 11$.

8 3. Convert the result in step 2 to binary by a standard decimal-to-binary conversion as
9 described in Table 2.3.1.1-1 and limit the resulting number to the 7 least significant
10 bits.

11 2.3.1.3 Encoding of the MCC_M and MCC_T

12 The MCC_M and MCC_T binary mapping is defined as follows:

13 1. Represent the 3-digit Mobile Country Code as D₁ D₂ D₃ with the digit equal to zero
14 being given the value of ten.

15 2. Compute $100 \times D_1 + 10 \times D_2 + D_3 - 111$.

16 3. Convert the result in step (2) to binary by a standard decimal-to-binary conversion
17 as described in Table 2.3.1.1-1.

18 2.3.1.4 Mobile Directory Number

19 A Mobile Directory Number (MDN) is a dialable number associated with the mobile station
20 through a service subscription. A Mobile Directory Number is not necessarily the same as
21 the mobile station identification on the air interface, i.e., MIN, IMSI_M or IMSI_T. An MDN
22 consists of up to 15 digits. The mobile station should have memory to store at least one
23 Mobile Directory Number (see Table F.3-1).

24 2.3.2 Electronic Serial Number

25 The ESN is a 32-bit binary number that uniquely identifies the mobile station to any
26 wireless system. The ESN value is available to procedures in the mobile station as the
27 value of the variable ESN_p. The value of the variable RN_HASH_KEY_s is the same as the
28 value of the variable ESN_p, and need not be stored separately.

29 2.3.3 Station Class Mark

30 Class-of-station information referred to as the station class mark (SCM_p) must be stored in
31 a mobile station. The digital representation of this class mark is specified in Table 2.3.3-1.

1

Table 2.3.3-1. Station Class Mark

Function	Bit(s)	Setting	
Extended SCM Indicator	7	Band Classes 1,4 1XXXXXXXX Other bands 0XXXXXXXX	
Dual Mode	6	CDMA Only X0XXXXXX Dual Mode X1XXXXXX	
Slotted Class	5	Non-Slotted XX0XXXXX Slotted XX1XXXXX	
IS-54 Power Class	4	Always 0 XXX0XXXX	
25 MHz Bandwidth	3	Always 1 XXXX1XXX	
Transmission	2	Continuous XXXX0XX Discontinuous XXXX1XX	
Power Class for Band Class 0 Analog Operation	1 - 0	Class I XXXXX00 Class II XXXXX01 Class III XXXXX10 Reserved XXXXX11	

2

3 If the mobile station supports analog mode operation in Band Class 0, the mobile station
 4 shall set the Power Class function bits to reflect its analog power class at Band Class 0,
 5 regardless of the band class in which it is operating; otherwise, the mobile station shall set
 6 these bits to '00'.

7 2.3.4 Registration Memory

8 The mobile station shall have memory to store one element in the zone-based registration
 9 list ZONE_LIST_{s-p} (see 2.6.5.1.5 and 2.6.5.5). This stored element shall include both
 10 REG_ZONE and the corresponding (SID, NID) pair. The data retention time under power-off
 11 conditions shall be at least 48 hours. If, after 48 hours, the data integrity cannot be
 12 guaranteed, then the entry in ZONE_LIST_{s-p} shall be deleted upon power-on.

13 The mobile station shall have memory to store one element in the system/network
 14 registration list SID_NID_LIST_{s-p} (see 2.6.5.1.5 and 2.6.5.5). The data retention time under
 15 power-off conditions shall be at least 48 hours. If, after 48 hours, the data integrity cannot
 16 be guaranteed, then the entry in SID_NID_LIST_{s-p} shall be deleted upon power-on.

17 The mobile station shall have memory to store the distance-based registration variables
 18 BASE_LAT_REG_{s-p}, BASE_LONG_REG_{s-p}, and REG_DIST_REG_{s-p} (see 2.6.5.1.4 and
 19 2.6.5.5). The data retention time under power-off conditions shall be at least 48 hours. If,
 20 after 48 hours, the data integrity cannot be guaranteed, then REG_DIST_REG_{s-p} shall be
 21 set to zero upon power-on.

1 2.3.5 Access Overload Class

2 The 4-bit access overload class indicator (ACCOLC_p) is used to identify which overload class
 3 controls access attempts by the mobile station and is used to identify redirected overload
 4 classes in global service redirection.

5 The mobile station shall store 4-bit access overload class (ACCOLC_p). Mobile stations that
 6 are not for test or emergency use should be assigned to overload classes ACCOLC 0 through
 7 ACCOLC 9. For mobile stations that are classified as overload classes ACCOLC 0 through
 8 ACCOLC 9, the mobile station's 4-bit access overload class indicator (ACCOLC_p) shall be
 9 automatically derived from the last digit of the associated decimal representation of the
 10 IMSI_M by a decimal to binary conversion as specified in Table 2.3.5-1. When a mobile
 11 station's IMSI_M is updated, the mobile station shall re-calculate the ACCOLC_p as indicated
 12 above. Mobile stations designated for test use should be assigned to ACCOLC 10; mobile
 13 stations designated for emergency use should be assigned to ACCOLC 11. ACCOLC 12
 14 through ACCOLC 15 are reserved.³ Programming the 4-bit ACCOLC_p for overload classes
 15 ACCOLC 10 through ACCOLC 15 as specified in Table 2.3.5-2 shall require a special facility
 16 only available to equipment manufacturers and system operators.

17 The content of ACCOLC_p shall not be visible through the mobile station's display.

18

19 **Table 2.3.5-1. ACCOLC_p Mapping for ACCOLC 0 through ACCOLC 9**

Last Digit of the Decimal Representation of the IMSI (binary)	ACCOLC _p
0	0000
1	0001
2	0010
3	0011
4	0100
5	0101
6	0110
7	0111
8	1000
9	1001

20

³ For more information, refer to [28].

Table 2.3.5-2. ACCOLC_p Mapping for ACCOLC 10 through ACCOLC 15

Overload Class (binary)	ACCOLC _p
10	1010
11	1011
12	1100
13	1101
14	1110
15	1111

2.3.6 Public Long Code Mask

The Public Long Code Mask consists of 42 bits (see [2]). The 37 least significant bits (PLCM_37) are set as follows:

Bits M₃₆ through M₃₂ shall be set to '11000'; bits M₃₁ through M₀ shall be set to a permutation of the mobile station's ESN as follows:

ESN = (E₃₁, E₃₀, E₂₉, E₂₈, E₂₇, E₂₆, E₂₅, ..., E₂, E₁, E₀)

Permuted ESN = (E₀, E₃₁, E₂₂, E₁₃, E₄, E₂₆, E₁₇, E₈, E₃₀, E₂₁, E₁₂, E₃, E₂₅, E₁₆, E₇, E₂₉, E₂₀, E₁₁, E₂, E₂₄, E₁₅, E₆, E₂₈, E₁₉, E₁₀, E₁, E₂₃, E₁₄, E₅, E₂₇, E₁₈, E₉).

2.3.7 Reserved

2.3.8 Home System and Network Identification

In addition to the HOME_SID_p parameter that the mobile station stores for 800 MHz analog operation, the mobile station shall provide memory to store at least one home (SID_p, NID_p) pair. The mobile station shall also provide memory to store the 1-bit parameters MOB_TERM_HOME_p, MOB_TERM_FOR_SID_p, and MOB_TERM_FOR_NID_p (see 2.6.5.3).

2.3.9 Local Control Option

If the mobile station supports the local control option, a means shall be provided within the mobile station to enable or disable the local control option.

2.3.10 Preferred Operation Selection

2.3.10.1 Preferred System

If the mobile station supports operation in Band Class 0 or Band Class 3 (see [2]), a means shall be provided within the mobile station to identify the preferred system. In addition, the mobile station may provide a means for allowing operation only with System A or only with System B.

1 2.3.10.2 Preferred CDMA or Analog
 2 If the mobile station supports operation in Band Class 0 (see [2]), a means may be provided
 3 within the mobile station to identify the preferred operation type as either CDMA mode or
 4 analog mode. In addition, the mobile station may provide a means for allowing operation
 5 only in the preferred mode.

6 2.3.11 Discontinuous Reception
 7 The mobile station shall provide memory to store the preferred slot cycle index,
 8 SLOT_CYCLE_INDEX_p (see 2.6.2.1.1.3.2).

9 2.3.12 Authentication, Encryption of Signaling Information/User Data and Voice Privacy

10 2.3.12.1 Authentication

11 Authentication is the process by which information is exchanged between a mobile station
 12 and base station for the purpose of confirming the identity of the mobile station. A
 13 successful outcome of the authentication process occurs only when it can be demonstrated
 14 that the mobile station and base station possess identical sets of shared secret data.

15 The authentication algorithms are described in [15]. The interface (input and output
 16 parameters) for the algorithms is described in [23], Table 2.3.12.1-1 summarizes the
 17 setting of the input parameters of the Auth_Signature procedure for each of its uses in this
 18 standard.

19 For authentication purposes, the mobile station shall use IMSI_M if it is programmed;
 20 otherwise, the mobile station shall use IMSI_T. The base station uses the IMSI selected
 21 according to the same criteria.

22

23 **Table 2.3.12.1-1. Auth_Signature Input Parameters**

Procedure	RAND_CHALLENGE	ESN	AUTH_DATA	SSD_AUTH	SAVE_REGISTERS
Unique Challenge (2.3.12.1.4)	RANDU and 8 LSBs of IMSI_S2	ESN _p	IMSI_S1	SSD_A	FALSE
Base Station Challenge (2.3.12.1.5)	RANDBS	ESN _p	IMSI_S1	SSD_A _ NEW	FALSE

24

25 2.3.12.1.1 Shared Secret Data (SSD)

26 SSD is a 128-bit quantity that is stored in semi-permanent memory in the mobile station
 27 and is readily available to the base station. As depicted in Figure 2.3.12.1.1-1, SSD is
 28 partitioned into two distinct subsets. Each subset is used to support a different process.

29

Contents	SSD_A	SSD_B
Length (bits)	64	64

Figure 2.3.12.1.1-1. Partitioning of SSD

SSD_A is used to support the authentication procedures and SSD_B is used to support voice privacy (see 2.3.12.3) and message encryption (see 2.3.12.2). SSD is generated according to the procedure specified in 2.3.12.1.5. The SSD shall not be accessible to the user.

2.3.12.1.2 Random Challenge Memory (RAND)

RAND is a 32-bit value held in the mobile station. When operating in CDMA mode, it is equal to the RAND value received in the last *Access Parameters Message* (see 3.7.2.3.2.2) or the *ANSI-41 RAND Message* (see 3.7.2.3.2.31) of the CDMA f-csch.

RAND_s is used in conjunction with SSD_A and other parameters, as appropriate, to authenticate mobile station originations, terminations and registrations.

2.3.12.1.3 Call History Parameter (COUNT_{s-p})

COUNT_{s-p} is a modulo-64 count held in the mobile station. COUNT_{s-p} is updated by the mobile station when a *Parameter Update Order* is received on the f-dsch (see 3.7.4).

2.3.12.1.4 Unique Challenge-Response Procedure

The Unique Challenge-Response Procedure is initiated by the base station and can be carried out either on the f-csch and r-csch, or on the f-dsch and r-dsch. The procedure is as follows:

The base station generates the 24-bit quantity RANDU and sends it to the mobile station in the *Authentication Challenge Message* on either the f-csch or f-dsch. Upon receipt of the *Authentication Challenge Message*, the mobile station shall set the input parameters of the Auth_Signature procedure (see [23] section 2.3) as illustrated in Figure 2.3.12.1.5-3. The 24 most significant bits of the RAND_CHALLENGE input parameter shall be filled with RANDU, and the 8 least significant bits of RAND_CHALLENGE shall be filled with the 8 least significant bits of IMSI_S2.

The mobile station shall set the SAVE_REGISTERS input parameter to FALSE.

The mobile station shall then execute the Auth_Signature procedure. The 18-bit output AUTH_SIGNATURE shall be used to fill the AUTHU field of the *Authentication Challenge Response Message*, which shall be sent to the base station.

The base station computes the value of AUTHU in the same manner as the mobile station, but using its internally stored value of SSD_A. The base station compares its computed value of AUTHU to the value received from the mobile station. If the comparison fails, the base station may deny further access attempts by the mobile station, drop the call in progress, or initiate the process of updating SSD (see 2.3.12.1.5).

- 1 2.3.12.1.5 Updating the Shared Secret Data (SSD)
- 2 SSD is updated using the SSD_Generation procedure (see [23], section 2.2.1), initialized
 3 with mobile station specific information, random data, and the mobile station's A-key. The
 4 A-key is 64 bits long. It is assigned to the mobile station and is stored in the mobile
 5 station's permanent security and identification memory. The A-key is known only to the
 6 mobile station and to its associated Home Location Register/Authentication Center
 7 (HLR/AC) (see [13]). Non-manual methods, such as described in [26], are preferred for
 8 entry of the A-key into the mobile station. A manual method of entry that may be used
 9 when automated methods are not available is described in [29].
- 10 The SSD update procedure is performed as follows (see Figure 2.3.12.1.5-1):
- 11 The base station sends an *SSD Update Message* on either the f-csch or the f-dsch. The
 12 RANDSSD field of the *SSD Update Message* contains the same value used for the HLR/AC
 13 computation of SSD.
- 14 Upon receipt of the *SSD Update Message* the mobile station shall set the input parameters
 15 of the SSD_Generation procedure (see [23], section 2.2.1) as illustrated in Figure 2.3.12.1.5-
 16 2. The mobile station shall then execute the SSD_Generation procedure. The mobile
 17 station shall set SSD_A_NEW and SSD_B_NEW to the outputs of the SSD_Generation
 18 procedure.
- 19 The mobile station shall then select a 32-bit random number, RANDBS, and shall send it to
 20 the base station in a *Base Station Challenge Order* on the r-csch or r-dsch.
- 21 Both the mobile station and the base station shall then set the input parameters of the
 22 Auth_Signature procedure (see [23], section 2.3) as illustrated in Figure 2.3.12.1.5-3 and
 23 shall execute the Auth_Signature procedure.
- 24 The mobile station and base station shall set the SAVE_REGISTERS input parameter to
 25 FALSE.
- 26 The mobile station and base station shall execute the Auth_Signature procedure. AUTHBS
 27 is set to the 18-bit result AUTH_SIGNATURE. The base station sends its computed value of
 28 AUTHBS to the mobile station in a *Base Station Challenge Confirmation Order* on the f-csch
 29 or the f-dsch.
- 30 Upon receipt of the *Base Station Challenge Confirmation Order* the mobile station shall
 31 compare the received value of AUTHBS to its internally computed value. (If the mobile
 32 station receives a *Base Station Challenge Confirmation Order* when an SSD update is not in
 33 progress, the mobile station shall respond with an *SSD Update Rejection Order*.)
- 34 If the comparison is successful, the mobile station shall execute the SSD_Update procedure
 35 (see [23], section 2.2.2) to set SSD_A and SSD_B to SSD_A_NEW and SSD_B_NEW,
 36 respectively. The mobile station shall then send an *SSD Update Confirmation Order* to the
 37 base station, indicating successful completion of the SSD update.
- 38 If the comparison is not successful, the mobile station shall discard SSD_A_NEW and
 39 SSD_B_NEW. The mobile station shall then send an *SSD Update Rejection Order* to the base
 40 station, indicating unsuccessful completion of the SSD update.

- 1 Upon receipt of the *SSD Update Confirmation Order*, the base station sets SSD_A and SSD_B
2 to the values received from the HLR/AC (see [13]).
3 If the mobile station fails to receive the *Base Station Challenge Confirmation Order* within
4 T_{64m} seconds of when the acknowledgment to the *Base Station Challenge Order* was
5 received, the mobile station shall discard SSD_A_NEW and SSD_B_NEW. The mobile
6 station shall then terminate the SSD update process.

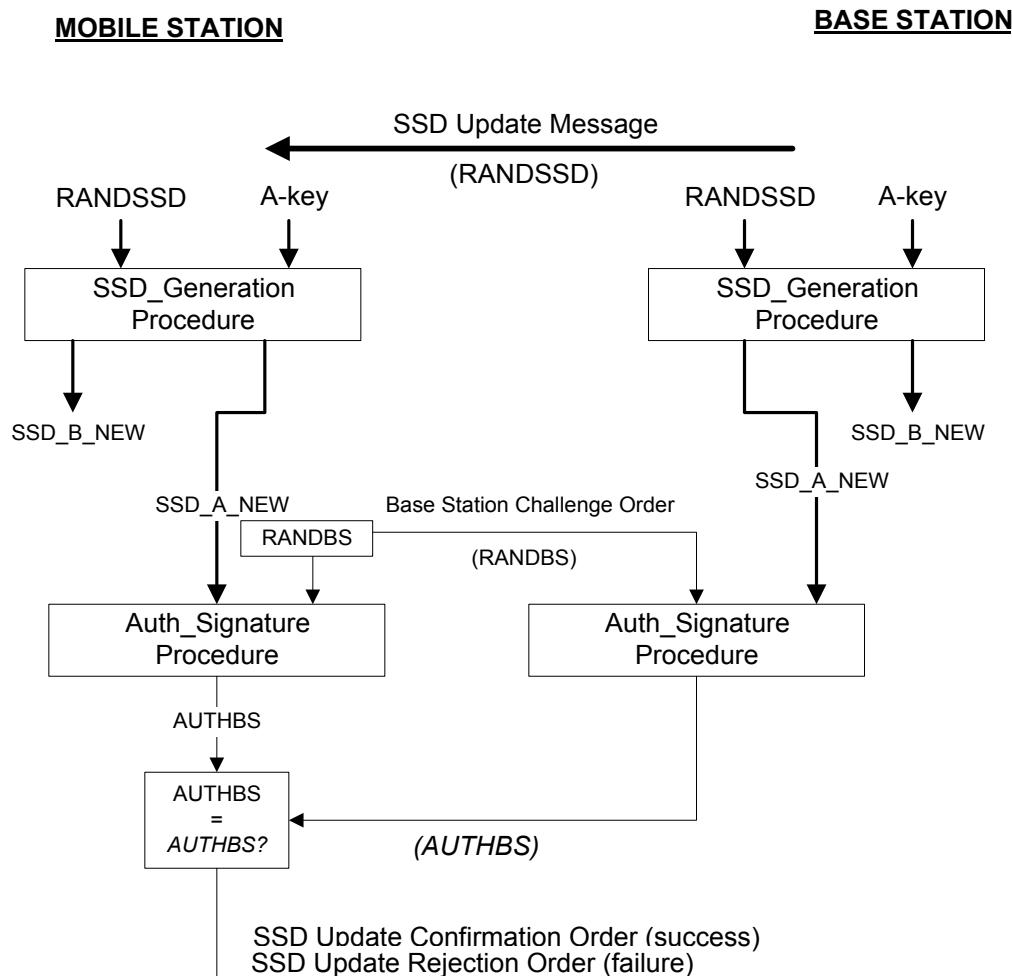
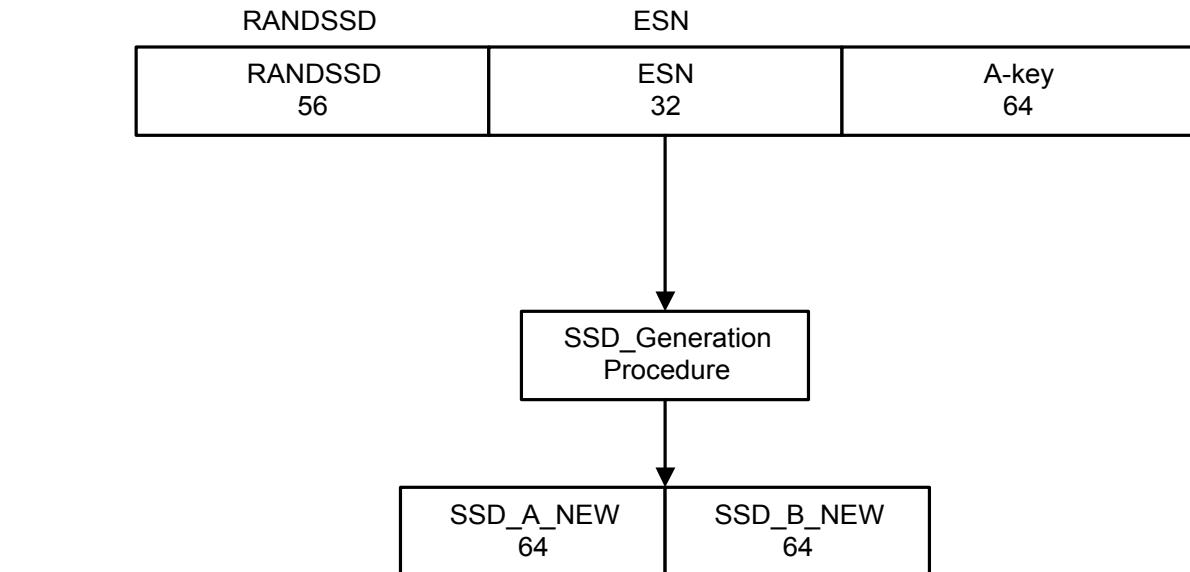
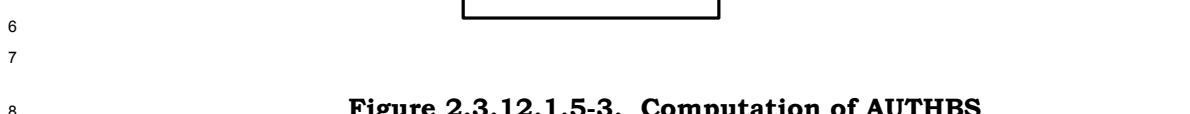


Figure 2.3.12.1.5-1. SSD Update Message Flow

**Figure 2.3.12.1.5-2. Computation of Shared Secret Data (SSD)****Figure 2.3.12.1.5-3. Computation of AUTHBS**

1 2.3.12.2 Signaling Message Encryption

2 In an effort to enhance the authentication process and to protect sensitive subscriber
 3 information (such as PINs), a method is provided to encrypt certain fields of selected f-dsch
 4 or r-dsch signaling messages.

5 The following is a description of the messages on f-dsch ([See-see](#) 2.3.12.2.1) and r-dsch (see
 6 2.3.12.2.2) that are enciphered using the Cellular Message Encryption Algorithm (see
 7 section 2.5.1, [15]) or the Enhanced Cellular Message Encryption Algorithm (see section
 8 2.5.2, [15]), and when ENCRYPT_MODE_S is set to '01' or '10'. The availability of encryption
 9 algorithm information is under government control.

10 For each message, the enciphered fields are identified. The messages are grouped by
 11 channel designation.

12 Messages shall not be encrypted if authentication is not performed (AUTH_S is set to '00').
 13 See [23] for details of the initialization and use of the encryption procedure.

14 Signaling message encryption is controlled for each call individually. If PREV_IN_USE is
 15 less than or equal to six, the mobile station identifies its encryption capability in the
 16 ENCRYPTION_SUPPORTED field in the *Origination Message* and the *Page Response Message*
 17 as shown in Table 2.7.1.3.2.4-5. If PREV_IN_USE is greater than or equal to seven, the
 18 mobile station identifies its encryption capability in the SIG_ENCRYPT_SUP field in
 19 *Registration Message*, *Origination Message*, *Page Response Message*, *Security Mode Request*
 20 *Message*, and the encryption capability information record in *Status Response Message* and
 21 *Extended Status Response Message*, as shown in Table 2.7.1.3.2.1-5. The initial encryption
 22 mode for the call is established by setting the ENCRYPT_MODE field to '00', '01', or '10' in
 23 the *Channel Assignment Message* or in the *Extended Channel Assignment Message*. If
 24 ENCRYPT_MODE is set to '00', message encryption is off. To turn encryption on after
 25 channel assignment, the base station sends one of the following f-dsch messages to the
 26 mobile station:

- 27 • *Extended Handoff Direction Message* with the ENCRYPT_MODE field set to '01' or
 28 '10'
- 29 • *General Handoff Direction Message* with the ENCRYPT_MODE field set to '01' or '10'
- 30 • *Universal Handoff Direction Message* with the ENCRYPT_MODE field set to '01' or
 31 '10'
- 32 • *Analog Handoff Direction Message* with the MEM field set to '1'
- 33 • *Message Encryption Mode Order* with the ENCRYPT_MODE field set to '01' or '10'

34 To turn signaling message encryption off, the base station sends one of the following f-dsch
 35 messages to the mobile station:

- 36 • *Extended Handoff Direction Message* with the ENCRYPT_MODE field set to '00'
- 37 • *General Handoff Direction Message* with the ENCRYPT_MODE field set to '00'
- 38 • *Universal Handoff Direction Message* with the ENCRYPT_MODE field set to '00'

- *Analog Handoff Direction Message* with the MEM field set to '0'
- *Message Encryption Mode Order* with the ENCRYPT_MODE field set to '00'

Encryption shall apply only to the part of the Layer 3 message specified below.

When encryption is off, all fields of all Layer 3 messages sent by the mobile station and base station are unencrypted.

When additional octets are inserted, the overall Lower Layers message length is updated to reflect the addition. Specific Layer 3 record length fields (e.g., RECORD_LEN, NUM_FIELDS, or NUM_DIGITS) shall not be affected by the insertion of additional bits.

If the Enhanced Cellular Message Encryption Algorithm is used, the following requirements apply:

- The mobile station and base station shall each maintain an 8-bit encryption sequence counter. The encryption sequence counter shall be incremented modulo 256 for each new encryption. The counter value, hereafter called ES_COUNT, shall be used to form the SYNC parameter of the Enhanced Cellular Message Encryption Algorithm as described below.
- As part of each encryption, an additional octet of value ES_COUNT shall be inserted immediately following the encrypted part of the message. This additional octet shall not be encrypted. The additional octet shall be removed from the message after decryption.

2.3.12.2.1 Encrypted Messages on the f-dsch

When encryption is on (ENCRYPT_MODE_S equal to binary '01' or '10'), the encryptable fields of the following messages sent on f-dsch, as listed below, shall be encrypted. All other messages sent on f-dsch shall be unencrypted.

1. Alert With Information Message (see 3.7.3.3.2.3) and Extended Alert With Information Message (see 3.7.3.3.2.42) are encrypted.

The type-specific fields of all information records (see 3.7.5) shall be encrypted. For each information record, the type-specific fields shall be treated by the encryption procedure as a new single message. If the type-specific fields of an information record consist of a single octet (RECORD_LEN field equal to 1), an additional octet of value '00000000' shall be inserted following the information record and shall be encrypted as if part of the record. (If the RECORD_LEN field is 0, the information record contains no type-specific fields, and the record contains no encrypted data.)

No other fields in the *Alert With Information Message* and *Extended Alert With Information Message* are encrypted.

If the Enhanced Cellular Message Encryption Algorithm is used (ENCRYPT_MODE_S equal to binary '10'), the following requirements apply for each information record:

- The DATA_TYPE parameter shall be set to '0'.
- The SYNC parameter shall be set as follows:

- 1 – SYNC[0] = ES_COUNT
 2 – SYNC[1] = RECORD_TYPE

3 2. Flash With Information Message (see 3.7.3.3.2.14) and Extended Flash With
 4 Information Message (see 3.7.3.3.2.43) are encrypted.

5 The type-specific fields of all information records (see 3.7.5) shall be encrypted. For each
 6 information record, the type-specific fields shall be treated by the encryption procedure
 7 as a new single message. If the type-specific fields of an information record consist of a
 8 single octet (RECORD_LEN field equal to 1), an additional octet of value '00000000' shall
 9 be inserted following the information record and shall be encrypted as if part of the
 10 record. (If the RECORD_LEN field is 0, the information record contains no type-specific
 11 fields, and the record contains no encrypted data.)

12 No other fields in the *Flash With Information Message* and *Extended Flash With*
 13 *Information Message* are encrypted.

14 If the Enhanced Cellular Message Encryption Algorithm is used (ENCRYPT_MODEs
 15 equal to binary '10'), the following requirements apply for each information record:

- 16 • The DATA_TYPE parameter shall be set to '0'.
- 17 • The SYNC parameter shall be set as follows:
 - 18 – SYNC[0] = ES_COUNT
 - 19 – SYNC[1] = RECORD_TYPE

20 3. *Send Burst DTMF Message* (see 3.7.3.3.2.9) is encrypted.

21 The DIGITi fields of the *Send Burst DTMF Message* shall be encrypted. These fields are
 22 treated by the encryption procedure as a new single message, with the 4-bit digit codes
 23 packed into consecutive octets. If the NUM_DIGITS field contains an odd number, four
 24 bits of value '0000' shall follow the last digit and shall be included in the encrypted
 25 message. If NUM_DIGITS is less than 3, an additional eight bits of value '00000000'
 26 shall follow the DIGITi fields and shall be included in the encrypted part of the message.

27 If the Enhanced Cellular Message Encryption Algorithm is used (ENCRYPT_MODEs
 28 equal to binary '10'), the following requirements apply:

- 29 • The DATA_TYPE parameter shall be set to '0'.
- 30 • The SYNC parameter shall be set as follows:
 - 31 – SYNC[0] = ES_COUNT
 - 32 – SYNC[1] = MSG_TYPE = '00001001'

33 4. *Continuous DTMF Tone Order* (see 3.7.3.3.2.1) is encrypted.

34 The 16 bits comprised of ADD_RECORD_LEN, the order-specific fields and the first five
 35 (5) bits of the RESERVED field shall be encrypted. These fields shall be treated by the
 36 encryption procedure as a new single message.

37 If the Enhanced Cellular Message Encryption Algorithm is used (ENCRYPT_MODEs

1 equal to binary ‘10’), the following requirements apply:

- 2 • The DATA_TYPE parameter shall be set to ‘0’.
- 3 • The SYNC parameter shall be set as follows:
 - 4 – SYNC[0] = ES_COUNT
 - 5 – SYNC[1] = MSG_TYPE = ‘00000001’

6 5. *Data Burst Message* (see 3.7.3.3.2.4) is encrypted.

7 If BURST_TYPE is equal to ‘111110’ or ‘111111’, all CHARi fields after the first two shall
8 be encrypted; otherwise, all CHARi fields shall be encrypted.

9 If the CHARi field consists of a single octet (NUM_FIELDS field equal to 1), an
10 additional octet of value ‘00000000’ shall be inserted following the information record
11 and shall be encrypted as if part of the record. (If the NUM_FIELDS field is 0, the
12 information record contains no type-specific fields, and the record contains no
13 encrypted data).

14 If the Cellular Message Encryption Algorithm is used (ENCRYPT_MODEs equal to binary
15 ‘01’), the following requirements apply:

- 16 • If BURST_TYPE is equal to ‘000011’ (SMS) or ‘000100’ (OTASP), the message
17 shall be encrypted.
- 18 • For all other values of BURST_TYPE, the message shall be encrypted only if
19 encryption is required by the service option standard governing use of the *Data
20 Burst Message*; otherwise, the message shall not be encrypted.

21 If the Enhanced Cellular Message Encryption Algorithm is used (ENCRYPT_MODEs
22 equal to binary ‘10’), the following requirements apply:

- 23 • If BURST_TYPE is equal to ‘000100’ (OTASP), the DATA_TYPE parameter shall be
24 set to ‘0’. Otherwise, the DATA_TYPE parameter shall be set to ‘1’.
- 25 • The SYNC parameter shall be set as follows:
 - 26 – SYNC[0] = ES_COUNT
 - 27 – SYNC[1] = MSG_TYPE = ‘00000100’

28 6. Power Up Function Completion Message (see 3.7.3.3.2.30) is encrypted.

29 If the LOC_IND field is set to ‘1’, the fields RESERVED (3 bits), MS_LAT (22 bits),
30 MS_LONG (23 bits), and MS_LOC_TSTAMP (24 bits) are encrypted. These fields shall be
31 treated by the encryption procedure as a new single message.

32 Otherwise, if the LOC_IND field is set to ‘0’, no fields in this message are encrypted.

33 If the Enhanced Cellular Message Encryption Algorithm is used (ENCRYPT_MODEs
34 equal to binary ‘10’), the following requirements apply:

- 35 • The DATA_TYPE parameter shall be set to ‘1’.
- 36 • The SYNC parameter shall be set as follows:

- 1 – SYNC[0] = ES_COUNT
 2 – SYNC[1] = MSG_TYPE = ‘00011110’

3 2.3.12.2.2 Encrypted Messages on the r-dsch

4 When encryption is on (ENCRYPT_MODE_S equal to binary ‘01’ or ‘10’) the encryptable fields
 5 of the following r-dsch ~~H~~Layer 3 messages, as listed below, shall be encrypted. All other r-
 6 dsch messages shall be unencrypted.

7 1. Origination Continuation Message (see 2.7.2.3.2.9) and Enhanced Origination Message
 8 are encrypted.

9 The CHARI fields of the *Origination Continuation Message* and *Enhanced Origination*
 10 Message shall be encrypted. These fields shall be treated by the encryption procedure
 11 as a new single message, with the character codes packed into consecutive octets. If
 12 DIGIT_MODE is ‘0’ and the NUM_FIELDS field contains an odd number, four bits of
 13 value ‘0000’ shall follow the last digit and shall be included in the encrypted part of the
 14 message. In addition, if ENCRYPT_MODE_S is equal to ‘01’, the following requirement
 15 applies

- 16 • If DIGIT_MODE is ‘0’ and NUM_FIELDS is less than 3, or if DIGIT_MODE is ‘1’
 17 and NUM_FIELDS is less than 2, an additional eight bits of value ‘00000000’
 18 shall follow the CHARI fields and shall be included in the encrypted part of the
 19 message.

20 If the Enhanced Cellular Message Encryption Algorithm is used (ENCRYPT_MODE_S
 21 equal to binary ‘10’), the following requirements apply:

- 22 • The DATA_TYPE parameter shall be set to ‘0’.
- 23 • The SYNC parameter shall be set as follows:
 - 24 – SYNC[0] = ES_COUNT
 - 25 – SYNC[1] = MSG_TYPE = ‘00001001’ for *Origination Continuation Message*
 - 26 – SYNC[1] = MSG_TYPE = ‘00011010’ for *Enhanced Origination Message*

27 The type-specific fields of all information records (see 2.7.4) in the *Origination*
 28 *Continuation Message* and *Enhanced Origination Message* shall be encrypted. For each
 29 information record, the type-specific fields shall be treated by the encryption procedure
 30 as a new single message. If the type-specific fields of an information record consist of a
 31 single octet (RECORD_LEN field equal to 1), an additional octet of value ‘00000000’ shall
 32 be inserted following the information record and shall be encrypted as if part of the
 33 record. (If the RECORD_LEN field is 0, the information record contains no type-specific
 34 fields, and the record contains no encrypted data.)

35 If the Enhanced Cellular Message Encryption Algorithm is used (ENCRYPT_MODE_S
 36 equal to binary ‘10’), the following requirements apply for each information record:

- 37 • The DATA_TYPE parameter shall be set to ‘0’.
- 38 • The SYNC parameter shall be set as follows:

- 1 – SYNC[0] = ES_COUNT
- 2 – SYNC[1] = RECORD_TYPE

3 2. Flash With Information Message (see 2.7.2.3.2.3) and Extended Flash With Information
4 Message (see 2.7.2.3.2.32) are encrypted.

5 The type-specific fields of all information records (see 2.7.4) shall be encrypted. For each
6 information record, the type-specific fields shall be treated by the encryption procedure
7 as a new single message. If the type-specific fields of an information record consist of a
8 single octet (RECORD_LEN field equal to 1), an additional octet of value '00000000' shall
9 be inserted following the information record and shall be encrypted as if part of the
10 record. (If the RECORD_LEN field is 0, the information record contains no type-specific
11 fields, and the record contains no encrypted data.)

12 No other fields in the *Flash With Information Message* and *Extended Flash With*
13 *Information Message* are encrypted.

14 If the Enhanced Cellular Message Encryption Algorithm is used (ENCRYPT_MODE_s
15 equal to binary '10'), the following requirements apply for each information record:

- 16 • The DATA_TYPE parameter shall be set to '0'.
- 17 • The SYNC parameter shall be set as follows:
 - 18 – SYNC[0] = ES_COUNT
 - 19 – SYNC[1] = RECORD_TYPE

20 3. *Send Burst DTMF Message* (see 2.7.2.3.2.7) is encrypted.

21 The DIGIT_i fields of the *Send Burst DTMF Message* shall be encrypted. These fields shall
22 be treated by the encryption procedure as a new single message, with the 4-bit digit
23 codes packed into consecutive octets. If the NUM_DIGITS field contains an odd
24 number, four bits of value '0000' shall follow the last digit and shall be included in the
25 encrypted message. If NUM_DIGITS is less than 3, an additional eight bits of value
26 '00000000' shall follow the DIGIT_i fields and shall be included in the encrypted part of
27 the message.

28 If the Enhanced Cellular Message Encryption Algorithm is used (ENCRYPT_MODE_s
29 equal to binary '10'), the following requirements apply:

- 30 • The DATA_TYPE parameter shall be set to '0'.
- 31 • The SYNC parameter shall be set as follows:
 - 32 – SYNC[0] = ES_COUNT
 - 33 – SYNC[1] = MSG_TYPE = '00000111'

34 4. *Continuous DTMF Tone Order* (see 2.7.2.3.2.1) is encrypted.

35 The 16 bits comprised of ADD_RECORD_LEN, the order-specific fields and the first five
36 (5) bits of the RESERVED field shall be encrypted. These fields shall be treated by the
37 encryption procedure as a new single message.

38 If the Enhanced Cellular Message Encryption Algorithm is used (ENCRYPT_MODE_s

1 equal to binary '10'), the following requirements apply:

- 2 • The DATA_TYPE parameter shall be set to '0'.
- 3 • The SYNC parameter shall be set as follows:
 - 4 – SYNC[0] = ES_COUNT
 - 5 – SYNC[1] = MSG_TYPE = '00000001'

6 5. *Data Burst Message* (see 2.7.2.3.2.4) is encrypted.

7 If BURST_TYPE is equal to '111110' or '111111', all CHARi fields after the first two shall
8 be encrypted; otherwise, all CHARi fields shall be encrypted.

9 If the CHARi field consists of a single octet (NUM_FIELDS field equal to 1), an
10 additional octet of value '00000000' shall be inserted following the information record
11 and shall be encrypted as if part of the record. (If the NUM_FIELDS field is 0, the
12 information record contains no type-specific fields, and the record contains no
13 encrypted data).

14 If the Cellular Message Encryption Algorithm is used (ENCRYPT_MODE_S equal to binary
15 '01'), the following requirements apply:

- 16 • If BURST_TYPE is equal to '000011' (SMS) or '000100' (OTASP), the message
17 shall be encrypted.
- 18 • For all other values of BURST_TYPE, the message shall be encrypted only if
19 encryption is required by the service option standard governing use of the *Data
Burst Message*; otherwise, the message shall not be encrypted.

21 If the Enhanced Cellular Message Encryption Algorithm is used (ENCRYPT_MODE_S
22 equal to binary '10'), the following requirements apply:

- 23 • If BURST_TYPE is equal to '000100' (OTASP), the DATA_TYPE parameter shall be
24 set to '0'. Otherwise, the DATA_TYPE parameter shall be set to '1'.
- 25 • The SYNC parameter shall be set as follows:
 - 26 – SYNC[0] = ES_COUNT
 - 27 – SYNC[1] = MSG_TYPE = '00000100'

28 2.3.12.3 Voice Privacy

29 Also see [2].

30 Voice privacy is provided in the CDMA system by means of the private long code mask used
31 for PN spreading.

32 Voice privacy is provided on the Traffic Channels only. All calls are initiated using the
33 public long code mask for PN spreading. The mobile station user may request voice privacy
34 during call setup using the *Origination Message* or *Page Response Message*, and during
35 Traffic Channel operation using the *Long Code Transition Request Order*.

36 The transition to private long code mask shall not be performed if authentication is not
37 performed (AUTH_S is set to '00' or mobile station unable to perform authentication).

- 1 To initiate a transition to the private or public long code mask, either the base station or
 2 the mobile station sends a *Long Code Transition Request Order* on the f-dsch or r-dsch. The
 3 mobile station actions in response to receipt of this order are specified in 2.6.4, and the
 4 base station actions in response to receipt of this order are specified in 3.6.4.
 5 The base station can also cause a transition to the private or public long code mask by
 6 sending the *Extended Handoff Direction Message*, the *General Handoff Direction Message*, or
 7 the *Universal Handoff Direction Message* with the PRIVATE_LCM bit set appropriately.

8 2.3.12.4 Extended Encryption for Signaling Message and User Information

9 ~~In an effort to enhance the authentication process and to protect sensitive subscriber~~
 10 ~~information (such as PINs), a method is provided to encrypt selected f-dsch, r-dsch, f-esch,~~
 11 ~~or r-esch Layer 3 signaling PDUs.~~

12 ~~The availability of encryption algorithm information is under government control.~~

13 Extended encryption is an encryption framework used for encrypting/decrypting both
 14 signaling messages and user information on f/r-dsch or f/r-csch. Signaling message and
 15 user information encryption algorithms can be negotiated independently. Signaling message
 16 and user information encryption can be turned on or off independently.

17 Signaling messages or user information shall not be encrypted if authentication is not
 18 performed (i.e., when AUTH_S is set to '00'. See 2.3.12.1). ~~See [23] for details of the~~
 19 ~~initialization and use of the encryption procedure.~~

20 2.3.12.4.1 Extended Encryption for Signaling Messages

21 Signaling messages with zero length shall be sent un-encrypted, in which case Layer 3
 22 shall indicate to LAC layer that the messages are sent un-encrypted, ~~and the following~~
 23 ~~encryption/decryption procedures shall not be performed on the messages.~~

24 All mini messages shall be sent un-encrypted, ~~in which case the following~~
 25 ~~encryption/decryption procedures shall not be performed on the messages.~~

26 When sending a Registration Accepted Order, Security Mode Command Message, or Base
 27 Station Reject Order, the base station should use assured mode.

28 ~~The initial encryption mode for the call is established by setting one of the following in the~~
 29 ~~Channel Assignment Message, Extended Channel Assignment Message, Registration Accepted~~
 30 ~~Order, or Security Mode Command Message.~~

- 31 • ~~ENCRYPT_MODE field is set to '00'; or~~
- 32 • ~~ENCRYPT_MODE field is set to '11' and the SIG_ENCRYPT_MODE field is set to '000'~~
 33 ~~or '001'.~~

34 ~~If the ENCRYPT_MODE field is set to '00', or if the ENCRYPT_MODE field is set to '11' and~~
 35 ~~the SIG_ENCRYPT_MODE field is set to '000', message encryption is off. To turn encryption~~
 36 ~~on after channel assignment, the base station sends one of the following f-dsch messages to~~
 37 ~~the mobile station:~~

- 1 • *General Handoff Direction Message* with the ENCRYPT_MODE field set to '11' and
2 the SIG_ENCRYPT_MODE field set to '001'.
- 3 • *Universal Handoff Direction Message* with the ENCRYPT_MODE field set to '11' and
4 the SIG_ENCRYPT_MODE field set to '001'.
- 5 • *Security Mode Command Message* with the ENCRYPT_MODE field set to '11' and the
6 SIG_ENCRYPT_MODE field set to '001'.

7 To turn signaling message encryption off, the base station sends one of the following f/dsch
8 messages to the mobile station:

- 9 • *General Handoff Direction Message* with the ENCRYPT_MODE field set to '00', or the
10 ENCRYPT_MODE field set to '11' and the SIG_ENCRYPT_MODE field set to '000'.
- 11 • *Universal Handoff Direction Message* with the ENCRYPT_MODE field set to '00', or
12 the ENCRYPT_MODE field set to '11' and the SIG_ENCRYPT_MODE field set to '000'.
- 13 • *Security Mode Command Message* with the ENCRYPT_MODE field set to '00', or the
14 ENCRYPT_MODE field set to '11' and the SIG_ENCRYPT_MODE field set to '000'.

15 2.3.12.4.1.1 Extended Encryption for Signaling on f/r-csch

16 To turn f/r-csch signaling encryption on or off, the base station sends a *Registration
17 Accepted Order* or *Security Mode Command Message* on f-csch, with the
18 C SIG ENCRYPT MODE field set to one of the values specified in Table 3.7.4.5-1. The value
19 of C SIG ENCRYPT MODE_r is then stored in C SIG ENCRYPT MODE_s.

20 If C SIG ENCRYPT MODE_s is not equal to '000' and ENC KEY_s is not equal to NULL, all
21 f/r-csch signaling messages shall be encrypted based on the value of
22 C SIG ENCRYPT MODE_s using the procedures specified in 2.3.12.4.1.3; except for the
23 exceptions listed below in the rest of this section.

24 If the mobile station sends an encrypted *Registration Message*, *Origination Message*, or *Page
25 Response Message*, and receives a layer 2 acknowledgement from the base station, but does
26 not receive any Layer 3 message from the base station that the mobile station could decrypt
27 successfully thereafter, then the mobile station should resend the same message un-
28 encrypted.

29 On the f-csch, *General Page Message*, *Universal Page Message*, *Registration Request Order*,
30 *Authentication Challenge Message*, and *Registration Accepted Order* shall be sent un-
31 encrypted. *Channel Assignment Message*, *Extended Channel Assignment Message*, and
32 *Security Mode Command Message* may be sent un-encrypted. All overhead messages and all
33 signaling messages with a broadcast address type shall be sent un-encrypted.

34 On the r-csch, *Registration Message*, *Page Response Message*, *Authentication Challenge
35 Response Message*, and *Security Mode Request Message* shall be sent un-encrypted. When
36 sending an *Origination Message*, if all of the following conditions are true, the mobile station
37 shall not include the dialed digits in the *Origination Message*, and the mobile station shall
38 include the dialed digits in the *Origination Continuation Message*:

- 39 • The base station supports extended encryption;

- C SIG ENCRYPT MODE_S is equal to ‘000’ or ENC KEY_S is equal to NULL;
- C SIG ENCRYPT REQ is set to ‘1’ or D SIG ENCRYPT REQ is set to ‘1’ in the Origination Message;
- The mobile station does not recognize that this is an emergency call.

2.3.12.4.1.2 Extended Encryption for Signaling on f/r-dsch

The initial mode of extended encryption for f/r-dsch signaling messages is established by sending a Channel Assignment Message or Extended Channel Assignment Message with the ENCRYPT MODE field set to ‘11⁴ and the D SIG ENCRYPT MODE field set to one of the values specified in Table 3.7.4.5-1. The value of D SIG ENCRYPT MODE_r is then stored in D SIG ENCRYPT MODE_S.

To turn f/r-dsch signaling encryption on or off after channel assignment, the base station sends a General Handoff Direction Message or Universal Handoff Direction Message with the ENCRYPT MODE field and the D SIG ENCRYPT MODE field set accordingly. Alternatively, the base station may send a Security Mode Command Message on f-dsch with the D SIG ENCRYPT MODE field set accordingly.

If D SIG ENCRYPT MODE_S is not equal to ‘000’ and ENC KEY_S is not equal to NULL, all f/r-dsch signaling messages shall be encrypted based on the value of D SIG ENCRYPT MODE_S using the procedures specified in 2.3.12.4.1.3, except for the exceptions listed below in the rest of this section.

On the f-dsch, the Security Mode Command Message may be sent un-encrypted. The Base Station Reject Order shall be sent un-encrypted.

On the r-dsch, the Security Mode Request Message shall be sent un-encrypted.

2.3.12.4.1.3 Signaling Encryption/Decryption Procedures

In order to perform signaling encryption/decryption on f/r-csch or f/r-dsch, both the mobile station and the base station shall each maintain the following 32-bit counters:

- EXT ENCRYPT SEQ[i] (the 32-bit crypto-sync for encryption. $i = 0$ and 1)
- EXT DECRYPT SEQ[i] (the 32-bit crypto-sync for decryption. $i = 0$ and 1)

The above counters in the base station and the mobile station shall only be initialized by a Registration Accepted Order, Channel Assignment Message, Extended Channel Assignment Message, or Security Mode Command Message in response to a Registration Message, Origination Message, Page Response Message, or Security Mode Request Message that carries an ENC SEQ H field with a valid ENC SEQ H SIG field.⁵ The response to a

⁴ If ENCRYPT MODE is set to a value other than ‘11’, see section 2.3.12.2.1.

⁵ The mobile station should select a different value of ENC SEQ H every time ENC SEQ H is included in a message. This is to prevent the re-use of the same 24 most significant bits of the 32-bit crypto-sync.

1 *Registration Message* is a *Registration Accepted Order*. The response to an *Origination*
 2 *Message or Page Response Message* is a *Channel Assignment Message* or *Extended Channel*
 3 *Assignment Message*. The response to a *Security Mode Request Message* is a *Security Mode*
 4 *Command Message*.

5 Upon initialization of the crypto-sync counters, the following initialization shall be
 6 performed at the mobile station:

- 7 • The 24 most significant bits of EXT ENCRYPT SEQ[i] and EXT DECRYPT SEQ[i]
 8 shall be set to the value of the ENC SEQ H field included in the message for $i = 0$
 9 and 1.
- 10 • The 8 least significant bits of EXT ENCRYPT SEQ[i] and EXT DECRYPT SEQ[i] shall
 11 be set to 0 for $i = 0$ and 1.

12 The sender shall perform the following procedures for each Layer 3 PDU (including all Layer
 13 3 PDU retransmitted by Layer 3) that is to be encrypted:

14 If ENCRYPT MODE_s is equal to '11' and SIG_ENCRYPT MODE_s is equal to '001', the mobile
 15 station or the base station shall perform the following procedures for transmission of
 16 messages that are to be encrypted, in the order listed:

- 17 1. The sender of the message shall append between 0 and 7 inclusive padding bits
 18 (set to any random combination of '0's and '1's) to the Layer 3 PDU such that the
 19 length of the padded Layer 3 PDU in bits is an integer multiple of eight (the padding
 20 bits become part of the L3 PDU).
- 21 2. The sender of the message shall compute an 8-bit Layer 3 PDU CRC as specified in
 22 2.3.12.4.1.4 over the un-encrypted Layer 3 PDU (including the padding bits, if any).
- 23 3. The sender of the message shall append the 8-bit CRC to the end of the Layer 3
 24 PDU.
- 25 4. The sender of the message shall set EXT_ENC_SEQ_s to $(\text{EXT_ENC_SEQ}_s + 1) \bmod 2^{32}$, and set ENC_SEQ_s to the 8 least significant bits of the crypto sync,
 26 EXT_ENC_SEQ_s. If the PDU is to be transmitted on f/r-csch, let SDU ENCRYPT MODE equal C SIG ENCRYPT MODE_s. If the PDU is to be
 27 transmitted on f/r-dsch, let SDU ENCRYPT MODE equal D SIG ENCRYPT MODE_s.
 28 If the Layer 3 PDU uses unassured mode, let $i = 0$; otherwise, let $i = 1$.
- 29 5. The sender of the message shall encrypt the concatenated Layer 3 PDU and the 8-bit
 30 Layer 3 CRC using the encryption procedures specified in 2.3.12.4.1.2. Let
 31 EXT ENC SEQ equal EXT ENCRYPT SEQ[i]. Encrypt the concatenated Layer 3 PDU
 32 and the 8-bit Layer 3 CRC by using EXT ENC SEQ and the encryption algorithm specified
 33 by SDU ENCRYPT MODE, in accordance with 2.3.12.4.3.
- 34 6. Let ENC SEQ be the 8 least significant bits of EXT ENCRYPT SEQ[i]. The sender of
 35 the message shall pass the encrypted concatenated Layer 3 PDU and the 8-bit Layer 3 CRC, along with ENC_SEQ_s and the signaling encryption
 36 mode indicated by SIGSDU_ENCRYPT_MODE_s, to the LAC layer.
- 37 7. Set EXT ENCRYPT SEQ[i] to $(\text{EXT_ENCRYPT_SEQ}_i + 1) \bmod 2^{32}$.

1 If ENCRYPT_MODE_s is not equal to '11', or ENCRYPT_MODE_s is equal to '11' and
 2 SIG_ENCRYPT_MODE_s is equal to '000', the mobile station and base station shall not
 3 perform the above encryption procedures for Layer 3 PDU as specified in this section.

4 The mobile station or the base station shall perform the following procedures upon
 5 reception of encrypted messages (i.e., if SDU_ENCRYPT_MODE indicated by LAC Layer is
 6 equal to '001'), in the order listed.
The receiver shall perform the following procedures upon
reception of an encrypted signaling message with an ENC SEQ field passed by the LAC
Layer (e.g., if SDU ENCRYPT MODE indicated by LAC Layer is not equal to '000'):

9 1. The receiver of the message shall update EXT_ENC_SEQ_s as specified in
 10 2.3.12.4.1.1 by using the 8-bit ENC_SEQ passed from the LAC Layer. If the Layer 3
 11 PDU uses unassured mode, let i = 0 and N = 8; otherwise, let i = 1 and N = 4. Let V
 12 be the 8 least significant bits of EXT ENC SEQ D[i]. Perform the duplicate detection
 13 procedures in accordance with 2.3.12.4.1.5 using N and V, before proceeding
 14 further.

15 2. The receiver of the message shall set ENC_SEQ_s to ENC_SEQ, which is received
 16 from the LAC Layer. Construct EXT ENC SEQ as follows:

17 If (ENC SEQ - V) mod 256 < 128:

18 EXT ENC SEQ[i] = (EXT DECRYPT SEQ[i] + (ENC SEQ - V) mod 256) mod 2³²

19 Else:

20 EXT ENC SEQ[i] = (EXT DECRYPT SEQ[i] - (V - ENC SEQ) mod 256) mod 2³²

21 3. The receiver of the message shall remove the LAC Layer padding, at the end of the
 22 Layer 3 PDU, if any, such that the Layer 3 PDU is octet aligned.

23 4. The receiver of the message shall decrypt the concatenated Layer 3 PDU and the 8-
 24 bit Layer 3 CRC using EXT ENC SEQ and the encryption algorithm specified by
 25 SDU ENCRYPT MODE, in accordance with 2.3.12.4.3, the decryption procedures
 26 specified in 2.3.12.4.1.2.

27 5. The receiver of the message shall compute an 8-bit CRC as specified in
 28 2.3.12.4.1.4 over the un-encrypted Layer 3 PDU (excluding the received 8-bit CRC).

29 6. The receiver of the message shall compare the value of the computed CRC with the
 30 decrypted 8-bit CRC. If the two CRCs are equal, the receiver shall declare that the
 31 decryption has been performed is defined to be successfully; otherwise the
 32 decryption is defined to be not unsuccessful.

33 7. If the decryption was unsuccessful, the message shall be discarded; otherwise, if
 34 ((ENC SEQ - V) mod 256) < 128, the receiver shall set EXT DECRYPT SEQ[i] to
 35 EXT ENC SEQ.

36 8. If the base station can not decrypt an Origination Message, the base station should
 37 send a Base Station Reject Order (ORDQ = '00000000'). If the base station can not
 38 decrypt any other message, the base station should send a Base Station Reject Order
 39 (ORDQ = '00000001').

2.3.12.4.1.4 Computation of the 8-bit Layer 3 PDU CRC Field

The generator polynomials for the 8-bit Layer 3 PDU CRC field shall be as follows:

$$g(x) = x^8 + x^7 + x^4 + x^3 + x + 1$$

The Layer 3 PDU CRC field shall be computed according to the following procedure using the logic shown in Figures 2.3.12.4.5-1:

- Initially, all shift register elements shall be set to logical one and the switches shall be set in the up position.
- The register shall be clocked a number of times equal to the number bits in the Layer 3 PDU with those bits as input.
- The switches shall be set in the down position so that the output is a modulo-2 addition with a '0' and the successive shift register inputs are '0'.
- The register shall be clocked an additional 8 number of times.
- These additional bits shall be the Layer 3 PDU CRC field indicator bits.
- The bits shall be transmitted in the order calculated.

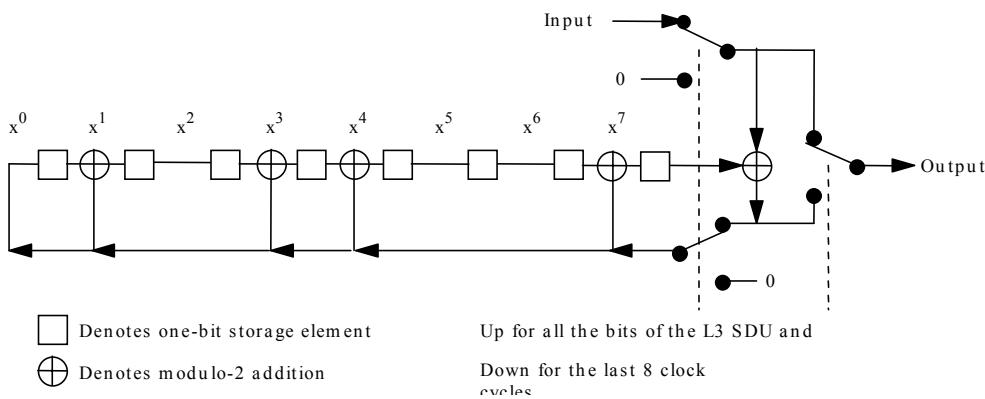


Figure 2.3.12.4.1.4-1. 8-Bit Layer 3 SDU CRC Field Calculation

2.3.12.4.1 Extended Encryption of Signaling Messages

All broadcast messages (messages that are not addressed to a particular mobile station) shall not be encrypted.

When ENCRYPT_MODE_s is equal to '11' and SIG_ENCRYPT_MODE_s is equal to '001' and when there is a valid encryption key, all Layer 3 PDU of the signaling messages with the following exceptions shall be encrypted as specified in 2.3.12.4.

— General Page Message

— Universal Page Message

If the mobile station sends an encrypted Registration Message, Origination Message, or a

1 ~~Page Response Message, and receives a layer 2 acknowledgement from the base station, but~~
 2 ~~does not receive any Layer 3 message from the base station that the mobile station could~~
 3 ~~decrypt successfully thereafter, then the mobile station should resend the same message~~
 4 ~~unencrypted.~~

5 **2.3.12.4.1.1 Extension of ENC_SEQ to EXT_ENC_SEQ for decryption**

6 ~~EXT_ENC_SEQ_s is the Extended Encryption Sequence Number that is used as one of the~~
 7 ~~inputs to the encryption algorithm as shown in Figure 2.3.12.4.2-1. The following formula~~
 8 ~~shall be used to update the 32 bit EXT_ENC_SEQ_s in the receiver from the 8-bit ENC_SEQ~~
 9 ~~passed by the LAC Layer:~~

10 ~~If (ENC_SEQ - ENC_SEQ_s) mod 256 < 128:~~

11 ~~EXT_ENC_SEQ_s = (EXT_ENC_SEQ_s + (ENC_SEQ - ENC_SEQ_s) mod 256) mod 2³²~~

12 ~~Else:~~

13 ~~EXT_ENC_SEQ_s = (EXT_ENC_SEQ_s - (ENC_SEQ_s - ENC_SEQ) mod 256) mod 2³²~~

14 **2.3.12.4.1.5 Duplicate Detection of Encrypted Messages**

15 ~~This section describes the duplicate detection of encrypted signaling messages (see the~~
 16 ~~decryption procedures at the receiver described in 2.3.12.4.1.3).~~

17 ~~Given the value of the latest sequence number received, V, and the window size, N (see the~~
 18 ~~decryption procedures at the receiver described in 2.3.12.4.1.3), the 8-bit encryption~~
 19 ~~sequence number space at the receiver can be divided into the following three segments as~~
 20 ~~shown in Figure 2.3.12.4.1.5-1:~~

- 21 • Segment #1 - sequence numbers from ((V - N + 1) mod 256) to V inclusive (the anti-
 22 replay window)
- 23 • Segment #2 - sequence numbers from ((V + 1) mod 256) to ((V + 127) mod 256)
 24 inclusive (future sequence numbers)
- 25 • Segment #3 - sequence numbers from ((V + 128) mod 256) to ((V - N) mod 256)
 26 inclusive (past sequence numbers)

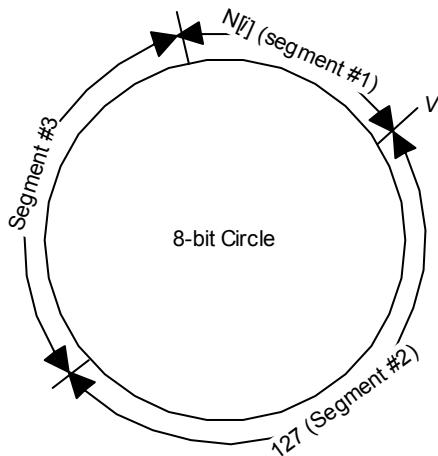


Figure 2.3.12.4.1.5-1 An 8-bit encryption sequence number space divided into 3 segments

If the received sequence number, ENC SEQ, belongs to segment #1, the receiver shall check whether ENC SEQ has already been received.⁶ If ENC SEQ has been received already, the receiver shall discard the message and shall not perform the remaining steps of the decryption procedures described in 2.3.12.4.1.3; otherwise, the receiver shall continue the decryption procedures described in 2.3.12.4.1.3.

If the received sequence number, ENC SEQ, belongs to segment #2, the receiver shall continue the decryption procedures described in 2.3.12.4.1.3.

If the received sequence number, ENC SEQ, belongs to segment #3, the receiver shall discard the message and shall not perform the remaining steps of the decryption procedures described in 2.3.12.4.1.3.

2.3.12.4.2 Extended Encryption for User Information

Extended encryption can be turned on or off independently for each individual service on f/r-dtch.

⁶ The actual means of checking is left to implementation. One simple implementation is for the receiver to maintain an N -bit bitmap, w , to represent the sequence numbers in segment #1. The order of w is most significant bit first (i.e., $w[N-1], w[N-2], \dots, w[1], w[0]$). Let $w[0]$ represents V , $w[1]$ represents $((V - 1) \bmod 256)$, etc. $w[i] = '1'$ means sequence number i has already been received. When a message with sequence number i has been decrypted successfully, $w[i]$ is set to '1'. Whenever V moves from V_1 to V_2 , left-shift w $((V_2 - V_1) \bmod 256)$ times. Each time w is left-shifted, stuff a '0' at the eight end of w . After all the shifting, set $w(0)$ to '1'.

1 The initial encryption mode of user information of a service is established by sending a
 2 *Security Mode Command Message* on f-csch or by setting the UI ENCRYPT MODE field in
 3 the Service Configuration information record, with the UI ENCRYPT MODE field set to one
 4 of the values specified in 3.7.5.7-3. The value of the UI ENCRYPT MODE field is then
 5 stored in SO CON REC_{S[j]}.UI ENCRYPT MODE, where SO CON REC_{S[j]} is the service
 6 option connection record (see 2.6.4.1.12) corresponding to the service.

7 To turn user information encryption for a service on or off after channel assignment, the
 8 base station sends a *Security Mode Command Message* on f-dsch with the
 9 UI ENCRYPT MODE field set accordingly. Explicit action time should be used when
 10 sending the *Security Mode Command Message*.

11 User information shall be encrypted based on the value of
 12 SO CON REC_{S[j]}.UI ENCRYPT MODE, where SO CON REC_{S[j]} is the service option
 13 connection record (see 2.6.4.1.12) corresponding to the service.

14 2.3.12.4.2.1 User Information Encryption/Decryption Procedures

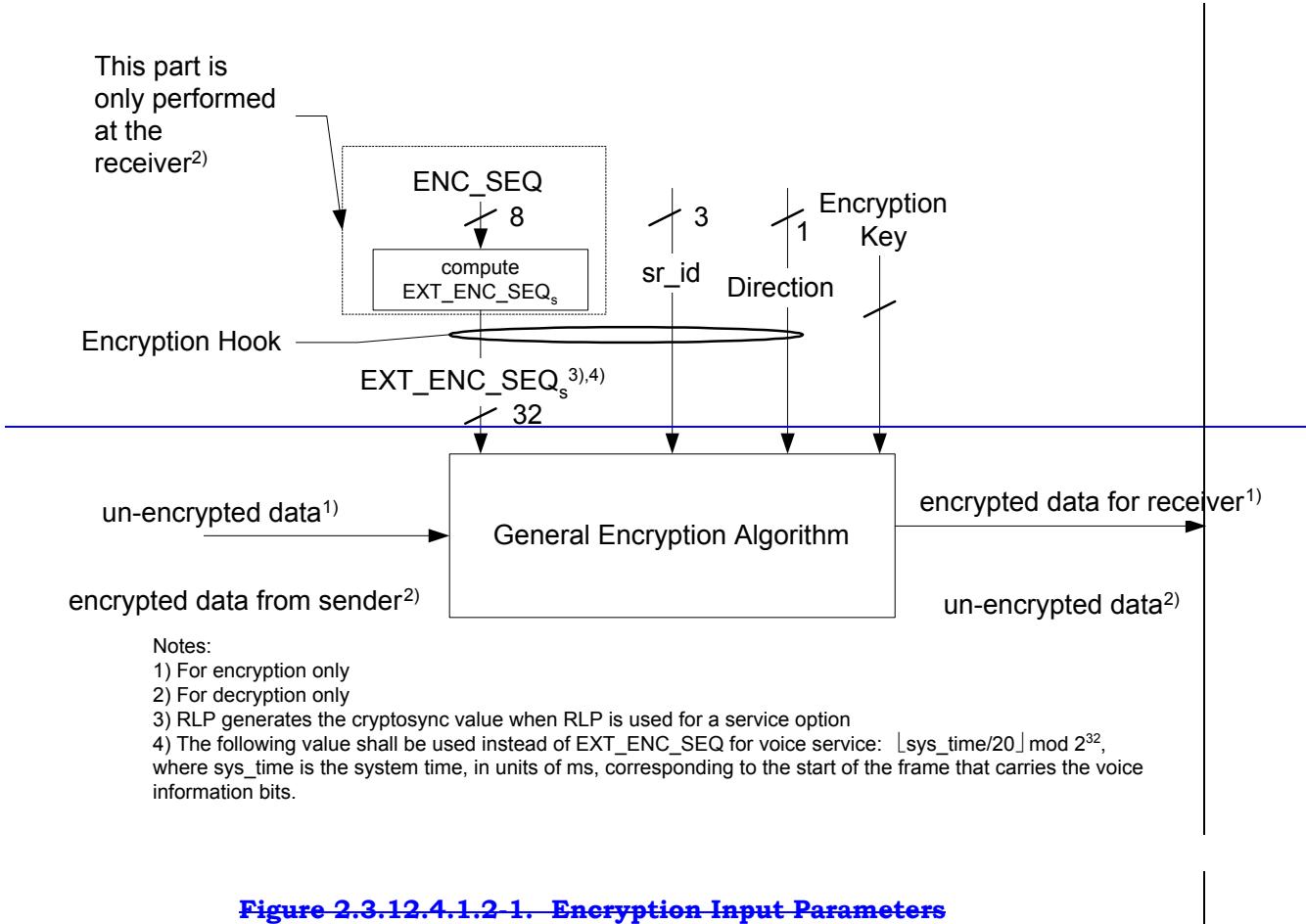
15 [Reserved]

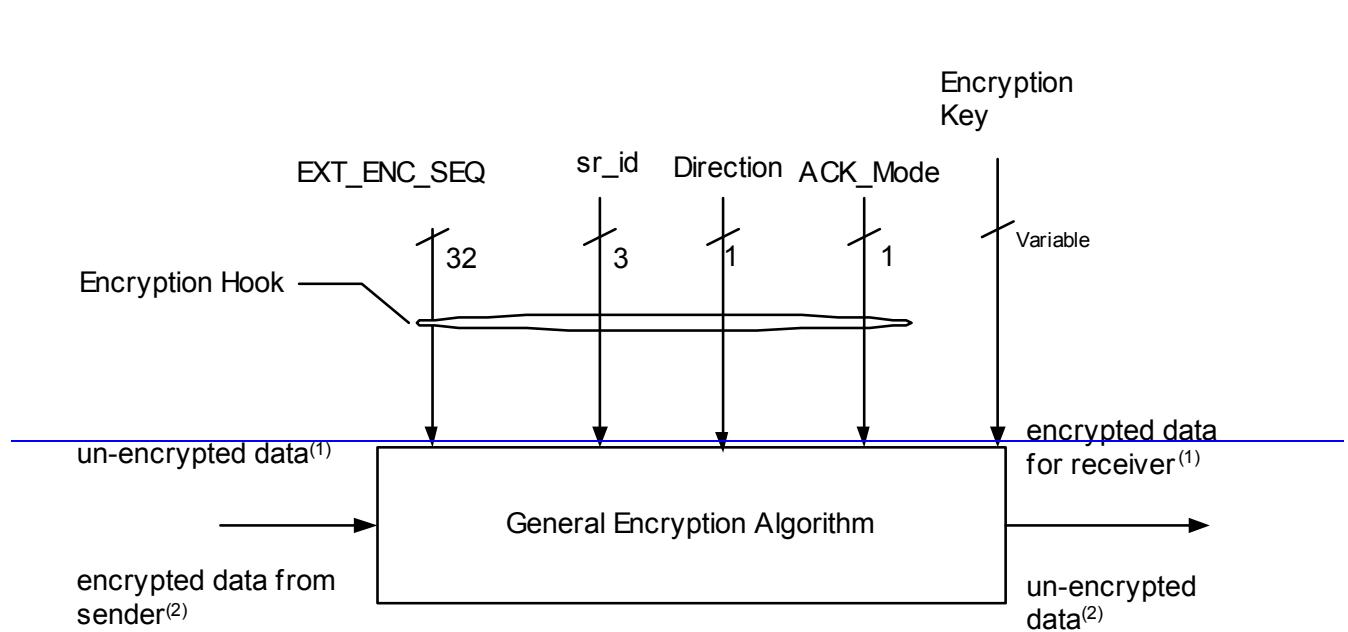
16 If extended encryption for user information is turned on for a service, the sender shall
 17 encrypt each data block (see [3]) from that service, in accordance with 2.3.12.4.3, before
 18 passing the data blocks to MAC Layer. On the receiver side, the receiver shall decrypt each
 19 data block for that service from MAC Layer, in accordance with 2.3.12.4.3, before passing
 20 them to that service.

21 2.3.12.4.31.2 Encryption/Decryption Procedures Interface to the Encryption Algorithms

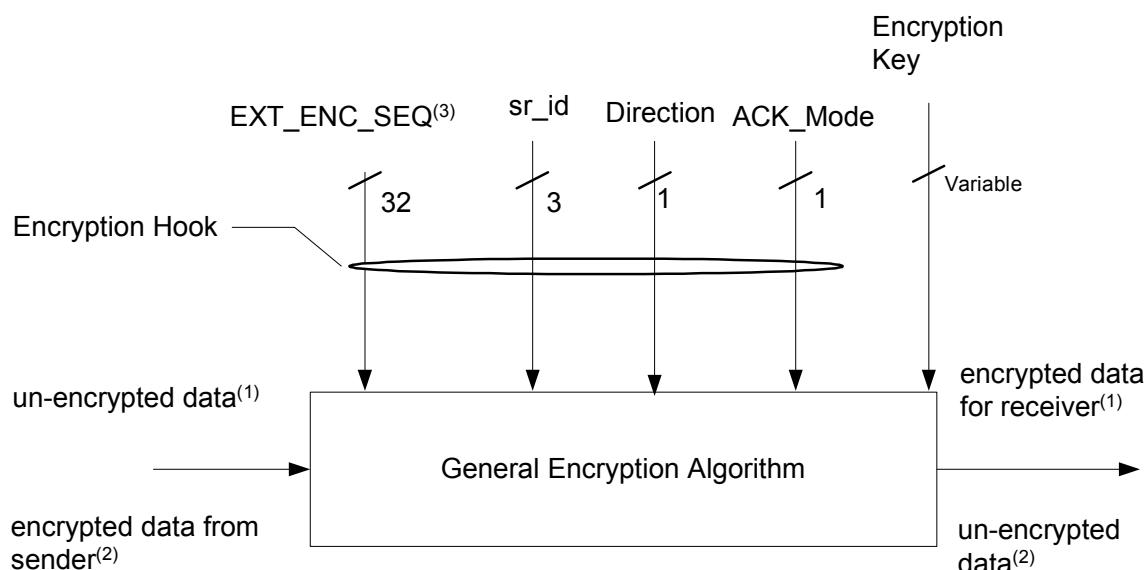
22 Figure 2.3.12.4.3-1 shows the structure for encrypting/decrypting both signaling messages
 23 and user information. Various encryption algorithms can be used with this structure. The
 24 encryption algorithm takes all or part of the following parameters as inputs, as illustrated
 25 in Figure 2.3.12.4.3-1. The actual inputs to the algorithm are specified in the rest of this
 26 section.

27 The encryption algorithm used takes all or part of the following parameters as input (as
 28 illustrated in Figure 2.3.12.4.1.2-1). The actual inputs to the algorithm are specified in this
 29 section.





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2

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Figure 2.3.12.4.3-1. Encryption Input Parameters

The inputs to the encryption algorithm are described as follows:

- EXT_ENC_SEQ_s - A 32-bit Extended Encryption Sequence Number ~~stored in the sender or receiver (in the receiver, it is updated and derived from the 8 bit ENC_SEQ as described in 2.3.12.4.1.1) for encryption/decryption.~~
 - sr_id - Service Reference Identifier (see [3]), which identifies the associated service option instance. ~~The value of '000' is reserved for signaling.~~
 - Direction - The direction of the ~~message data~~ being ~~transmitted encrypted/decrypted~~. This shall be set to '0' if the ~~message data~~ is transmitted on or received on a forward link. Otherwise, it shall be set to '1'.
 - Encryption Key – Session Key for Encryption. This shall be a result of successful Session Key Agreement between the base station and the mobile station. The Encryption Key shall be stored by the mobile station in a semi-permanent memory. ~~{ENC_KEY_i} where i ranges from '0000' to '1111'~~.
 - Channel id – Channel identifier, which identifies the physical channel that carries the data to be encrypted or decrypted. This is applicable only to user information encryption on f/r-dtch. Channel id shall be set to, '000' for Fundamental Channel, '001' for Dedicated Control Channel, '010' for Supplemental Code Channel, '011' for Supplemental Channel 0, and '101' for Supplemental Channel 1.
 - ACK Mode – The delivery mode (unassured or assured) of the signaling message. This shall be set to '0' if the message is delivered using unassured mode; otherwise, this shall be set to '1'.

If the Enhanced Cellular Message Encryption Algorithm is used ([ENCRYPT_MODE_s](#) is equal to '11' and [SIG_ENCRYPT_MODE_s](#) is equal to '001'), the following requirements apply for encrypting/decrypting signaling messages, the input parameters of the Enhanced Cellular Message Encryption Algorithm (see [23]) shall be set as follows:

- The DATA_TYPE parameter shall be set to ‘0’.
 - The SYNC parameter shall be set as follows:
 - SYNC[0] = ~~ENC_SEQ_s when encrypting~~ EXT ENC SEQ [7:0]⁷.
 - SYNC[0] = ~~ENC_SEQ passed by the LAC Layer associated with the Layer 3 PDU when decrypting~~
 - SYNC[1] = (ACK_Mode | Direction | EXT_ENC_SEQ_s [1413:8]), where “|” denotes concatenation and EXT_ENC_SEQ_s [1413:8] is bits 8 through 1413 of EXT_ENC_SEQ_s (with the LSB being bit 0).

If the Rijndael Encryption Algorithm is used for encrypting/decrypting signaling messages,

⁷ $Z[y:x]$ denotes bit x to bit y of the binary value Z with bit 0 the least significant bit of Z .

1 the input parameters of ESP AES (see [33]) shall be set as follows:

- 2 • The key parameter shall be set to ENC KEYS.
- 3 • The FRESH parameter shall be set to (ACK Mode | sr id [2:0] | Direction |
EXT ENC SEQ [31:0] | '000').
- 4 • The FRESHSIZE parameter shall be set to 5.
- 5 • The BUF parameter shall be set to the pointer of the most significant bit of the
buffer⁸ that contains the data to be encrypted or decrypted.
- 6 • The BIT_OFFSET parameter shall be set to the offset between the bit position of the
most significant bit of the data to be encrypted/decrypted and the bit position of the
most significant bit of the buffer (e.g., if the bit position of the most significant bit of
the data to be encrypted/decrypted and the bit position of the most significant bit of
the buffer are equal, BIT_OFFSET = 0).
- 7 • The BIT_COUNT parameter shall be set to the number of bits of the data to be
encrypted/decrypted.

8 If the Rijndael Encryption Algorithm is used for encrypting/decrypting user information,
the input parameters of ESP AES (see [33]) shall be set as follows:

- 9 • The key parameter shall be set to ENC KEYS.
- 10 • The FRESH parameter shall be set to (sr id [2:0] | Direction | (sys time/20 mod
 2^{32}) [31:0] | Channel id [2:0] | '0'), where sys time is the system time, in units of ms,
corresponding to the start of the physical layer frame that carries the data block(s).
- 11 • The FRESHSIZE parameter shall be set to 5.
- 12 • The BUF parameter shall be set to the pointer of the most significant bit of the
buffer⁹ that contains the data to be encrypted or decrypted.
- 13 • The BIT_OFFSET parameter shall be set to the offset between the bit position of the
most significant bit of the data to be encrypted/decrypted and the bit position of the
most significant bit of the buffer (e.g., if the bit position of the most significant bit of
the data to be encrypted/decrypted and the bit position of the most significant bit of
the buffer are equal, BIT_OFFSET = 0).
- 14 • The BIT_COUNT parameter shall be set to the number of bits of the data to be
encrypted/decrypted.

8 “Buffer” refers to the physical memory that stores the data to be encrypted or decrypted. The octets in the buffer are assumed to be most-significant first, and the first bit of the buffer is the most significant bit of the first octet.

9 “Buffer” refers to the implementation-dependent physical memory that stores the data to be encrypted or decrypted. The octets in the buffer are assumed to be most-significant first, and the first bit of the buffer is the most significant bit of the first octet.

1 **2.3.12.4.2 Extended Encryption for Voice**

2 ~~Extended Encryption for voice service option is performed by means of the encryption~~
 3 ~~procedures as specified in 2.3.12.4.1.2. If UI_ENCRYPT_MODE_{s[i]} is equal to '000', where i~~
 4 ~~is the connection reference associated with the voice service option, the voice data shall not~~
 5 ~~be encrypted. Instead of EXT_ENC_SEQ_s, the following value shall be used as an input to~~
 6 ~~the encryption procedure specified in 2.3.12.4.1.2.~~

7 $\lfloor \text{sys_time}/20 \rfloor \bmod 2^{22}$,

8 ~~where sys_time is the system time, in units of ms, corresponding to the start of the frame~~
 9 ~~that carries the information bits.~~

10 **2.3.12.4.34 Encryption Negotiation**

11 The mobile station shall indicate to the base station the encryption algorithms supported by
 12 using SIG_ENCRYPT_SUP and UI_ENCRYPT_SUP in one of the following messages:

- 13 • *Registration Message*
- 14 • *Origination Message*
- 15 • *Page Response Message*
- 16 • *Security Mode Request Message*
- 17 • **Status Response Message (in Encryption Capability information record)**
- 18 • **Extended Status Response Message (in Encryption Capability information record)**

19 ~~The mobile station can also indicate to the base station the encryption algorithms~~
 20 ~~supported by using SIG_ENCRYPT_SUP and UI_ENCRYPT_SUP in Encryption Capability~~
 21 ~~information record in the Status Response Message or Extended Status Response Message.~~

22 The base station may turn on or turn off the encryption of the voice, data services, or
 23 signaling encryption with a *Security Mode Command Message* sent on f-dsch or f-csch.
 24 Similarly, the mobile station may propose to turn on or turn off the user information
 25 encryption or signaling encryption with a *Security Mode Request Message* sent on r-dsch or
 26 r-csch.

27 **2.3.12.4.4 Computation of the 8 bit Layer 3 PDU CRC Field**

28 ~~The generator polynomials for the 8 bit Layer 3 PDU CRC field shall be as follows:~~

$$g(x) = x^8 + x^7 + x^4 + x^3 + x + 1$$

30 ~~The Layer 3 PDU CRC field shall be computed according to the following procedure using~~
 31 ~~the logic shown in Figures 2.3.12.4.4-1:~~

- 32 • ~~Initially, all shift register elements shall be set to logical one and the switches shall~~
 33 ~~be set in the up position.~~
- 34 • ~~The register shall be clocked a number of times equal to the number bits in the~~
 35 ~~Layer 3 PDU with those bits as input.~~

- 1 • The switches shall be set in the down position so that the output is a modulo-2
2 addition with a '0' and the successive shift register inputs are '0'.
- 3 • The register shall be clocked an additional 8 number of times.
- 4 • These additional bits shall be the Layer 3 PDU CRC field indicator bits.
- 5 • The bits shall be transmitted in the order calculated.

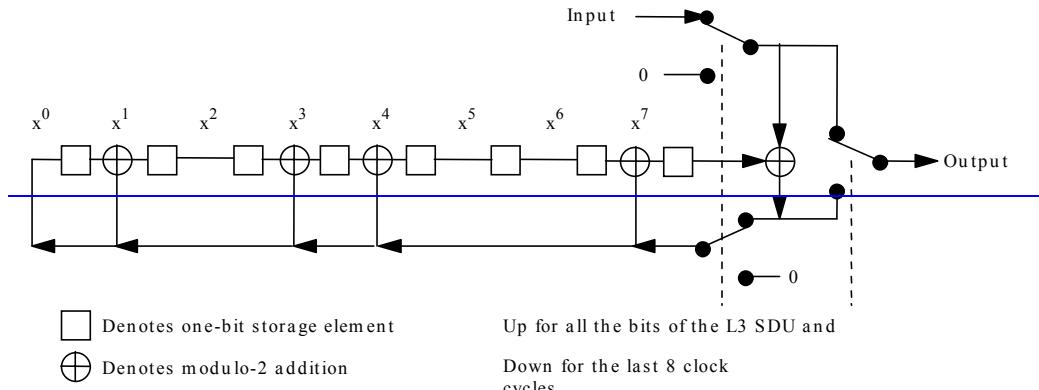


Figure 2.3.12.4.4-1. 8-Bit Layer 3 SDU CRC Field Calculation

2.3.12.4.5 Computation of ENC_SEQ_H_SIG

The ENC_SEQ_H_SIG field (included in the *Registration Message*, *Origination Message*, *Page Response Message*, and *Security Mode Request Message*) is a signature of the 24 most significant 24-bits of the cryptosync (ENC_SEQ_H). The mobile station shall compute this 8-bit field as follows:

1. The mobile station shall construct the *message bits* as shown in Figure 2.3.12.4.5-1.

For messages that are sent on the r-csch, X is set to RAND_s. For messages that are sent on the r-dsch, X is set to (sys time/20000) mod 2³², where sys time is the system time in ms at which the message is assembled.

MSB	LSB
SSD_A (64 bits)	<u>X</u> RAND _s (32 bits)

Figure 2.3.12.4.5-1. Message Bits

2. The mobile station shall pad the *message bits* constructed in the previous step, as specified in FIPS PUB 180-1 (Federal Information Processing Standards Publication 180-1), and compute the 160-bit *message digest* as specified in FIPS PUB 180-1.
3. The mobile station shall store the 8 rightmost (least significant) bits of the *message digest* in ENC_SEQ_H_SIG.

2.3.13 Lock and Maintenance Required Orders

The mobile station shall have memory to store the lock reason code (LCKRSN_Ps-p) received in the *Lock Until Power-Cycled Order*. The data retention time under power-off conditions shall be at least 48 hours.

1 The mobile station shall have memory to store the maintenance reason code (MAINTRSN_{s-p})
2 received in the *Maintenance Required Order*. The data retention time under power-off
3 conditions shall be at least 48 hours.

4 There are no requirements on the use of the lock and maintenance reason codes, and
5 interpretation and use are implementation dependent.

6 2.3.14 Mobile Station Revision Identification

7 The mobile station shall provide memory to store the following parameters sent in the
8 *Status Message*, the *Status Response Message*, or the *Extended Status Response Message*
9 (*Terminal Information* information record):

- 10 • Mobile manufacturer code (MOB_MFG_CODE_p)
- 11 • Manufacturer's model number (MOB_MODEL_p)
- 12 • Firmware revision number (MOB_FIRM_REV_p)

13 In addition, the mobile station shall provide memory to store the following parameter for
14 each supported band class:

- 15 • Protocol revision number (MOB_P_REV_p)

16 2.3.15 Temporary Mobile Station Identity

17 2.3.15.1 Overview

18 The Temporary Mobile Station Identity (TMSI) is a temporary locally assigned number used
19 for addressing the mobile station. The mobile station obtains a TMSI when assigned by the
20 base station. The TMSI as a number does not have any association with the mobile
21 station's IMSI, ESN, or directory number all of which are permanent identifications.

22 A TMSI zone is an arbitrary set of base stations for the administrative assignment of TMSIs.
23 A TMSI_CODE is uniquely assigned to a mobile station inside a TMSI zone. A TMSI zone is
24 identified by the TMSI_ZONE field. The same TMSI_CODE may be reused to identify a
25 different mobile station in a different TMSI zone. The pair (TMSI_ZONE, TMSI_CODE) is a
26 globally unique identity for the mobile station. This pair is called the full TMSI. The
27 TMSI_CODE can be two, three, or four octets in length. The TMSI_ZONE can range from 1
28 to 8 octets in length. Figure 2.3.15-1 shows an example of a TMSI_ZONE where the
29 TMSI_ZONE is a subset of the NID (see 2.6.5.2).

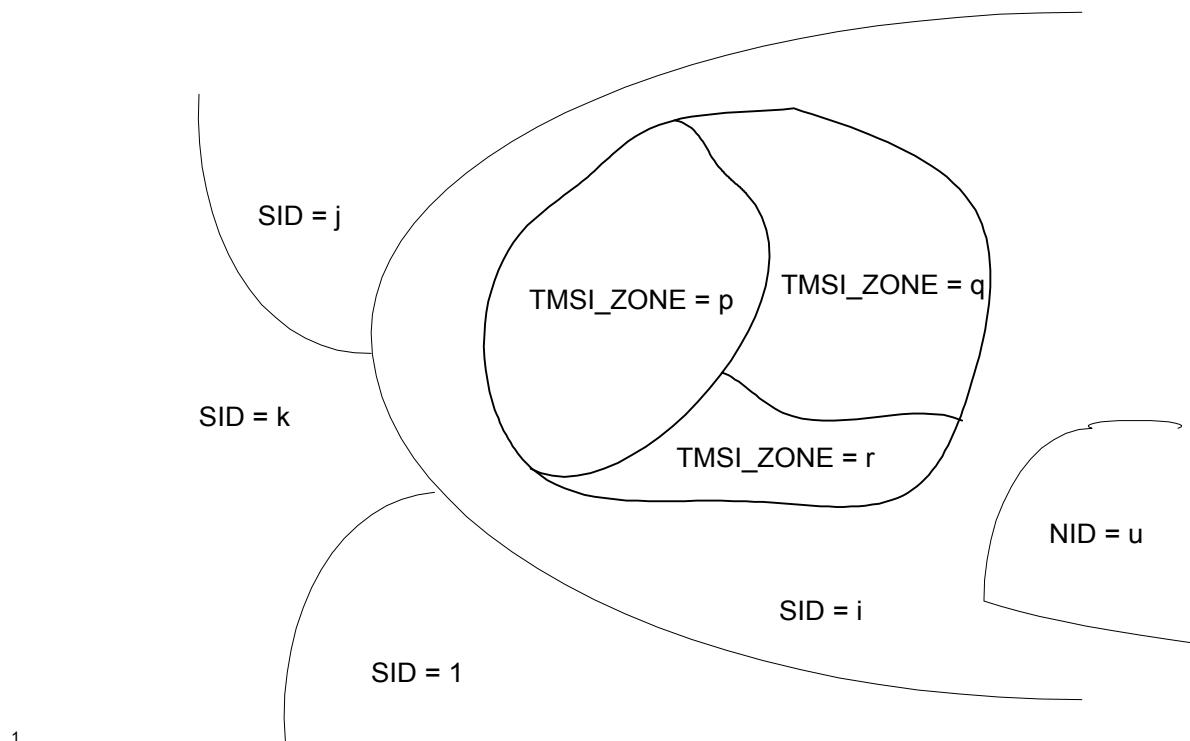


Figure 2.3.15-1. TMSI Zone Example

The base station sends a *TMSI Assignment Message* to assign a TMSI. In response, the mobile station sends a *TMSI Assignment Completion Message*. The base station instructs the mobile station to delete the TMSI by sending a *TMSI Assignment Message* with all the bits in the TMSI_CODE field set equal to '1'.

The TMSI expiration time is used to automatically delete the assigned TMSI. The mobile station obtains the expiration time when the TMSI is assigned in the *TMSI Assignment Message*. The mobile station compares the expiration time to the current System Time when it powers up and periodically during operation.

Whenever the mobile station sends its full TMSI, the mobile station sets a timer, called the full-TMSI timer. If the full-TMSI timer expires, the mobile station deletes the TMSI by setting all bits in the TMSI_CODE field to '1'.

2.3.15.2 TMSI Assignment Memory

The mobile station shall provide memory to store the following parameters:

- 4-bit assigning TMSI zone length (ASSIGNING_TMSI_ZONE_LEN_{s-p})
- 8-octet assigning TMSI zone (ASSIGNING_TMSI_ZONE_{s-p})
- 4-octet TMSI code (TMSI_CODE_{s-p})
- 3-octet TMSI expiration time (TMSI_EXP_TIME_{s-p})

1 **2.4 Accumulated Statistics**

2 2.4.1 Monitored Quantities and Statistics

3 The mobile station shall store the value described in Table 2.4.1-1.

4 **Table 2.4.1-1. Monitored Quantities and Statistics**

Quantity Identifier	Length (bits)	Description
OTHER_SYS_TIME	36	The SYS_TIME field from the most recently received <i>Sync Channel Message</i>

5 2.4.2 Accumulated Paging, Broadcast, and Forward Common Control Channel Statistics

6 The mobile station shall maintain the counters shown in Table 2.4.2-1. The counters shall
7 have the length as specified in Table 2.4.2-1. The mobile station shall initialize each
8 counter described herein to zero upon power-on; the mobile station shall not re-initialize
9 any counter described herein at any other time except upon command from the base
10 station. Each counter shall be maintained modulo 2^{Length} , where Length is specified in
11 Table 2.4.2-1.

12 The mobile station shall increment the counter PAG_6 each time that it declares a loss of
13 the Paging Channel (see 2.6.2.1.1.4). The mobile station shall increment the counter
14 PAG_7 for each idle handoff it performs. The mobile station shall increment the counter
15 FCCCH_4 each time that it declares a loss of the Forward Common Control Channel (see
16 2.6.2.1.1.4). The mobile station shall increment the counter BCCH_5 each time that it
17 declares a loss of the Broadcast Control Channel (see 2.6.2.1.1.4).

18 **Table 2.4.2-1. Accumulated PCH/BCCH/F-CCCH Channel Statistics**

Counter Identifier	Length (bits)	Description
PAG_6	16	Number of times that the mobile station declared a loss of the Paging Channel
PAG_7	16	Number of mobile station idle handoffs
FCCCH_4	16	Number of times that the mobile station declared a loss of the Forward Common Control Channel
BCCH_5	16	Number of times that the mobile station declared a loss of the Broadcast Control Channel

19 **2.5 Reserved**

20

21

22

23

1 **2.6 Layer 3 Processing**

2 This section describes mobile station Layer 3 processing. It contains frequent references to
3 the messages that flow between the mobile station and base station. While reading this
4 section, it may be helpful to refer to the PDU formats (see 2.7 and 3.7), and to the message
5 flow examples (see Annex B).

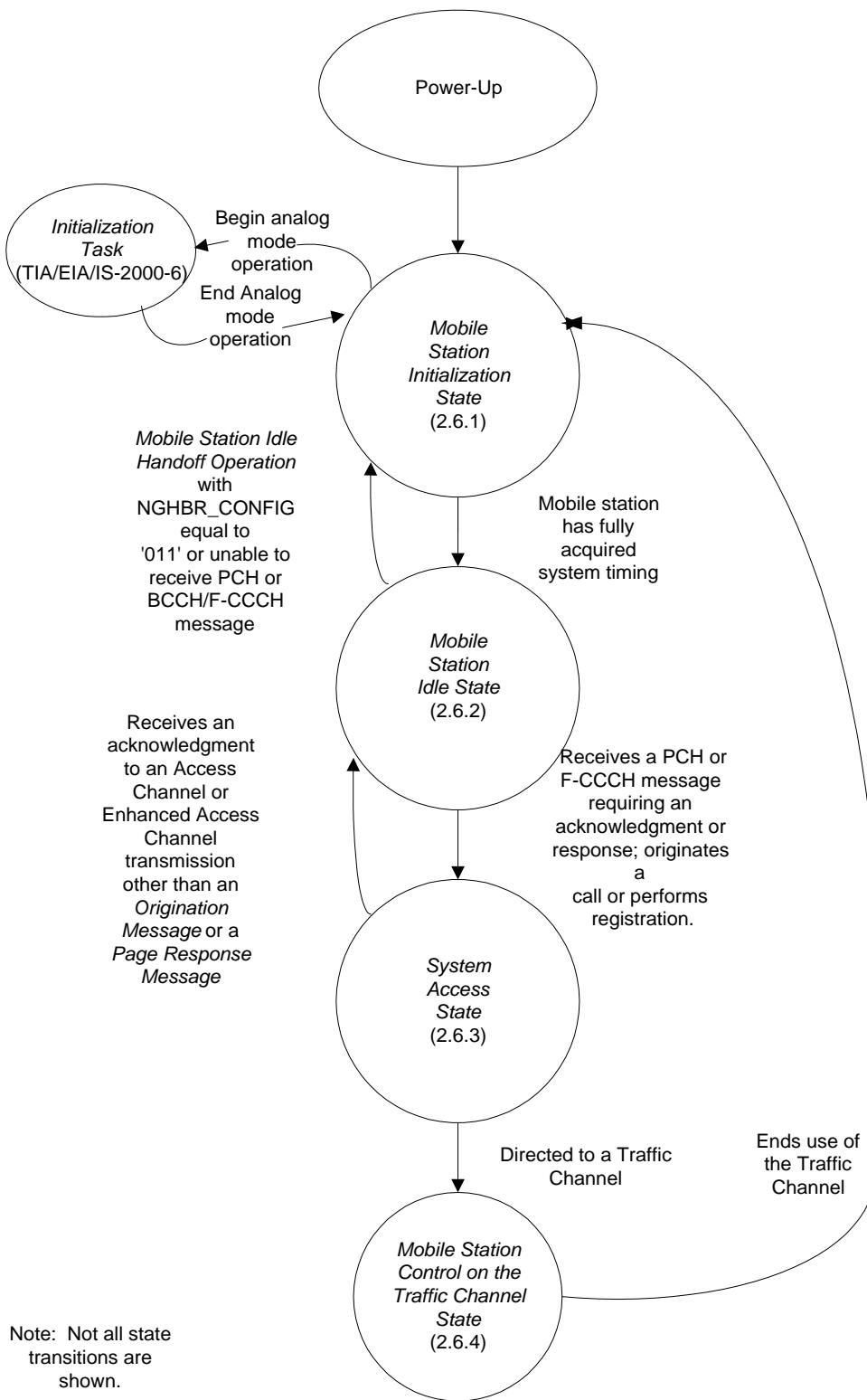
6 The mobile station shall ignore fields at the end of messages that do not exist in the
7 protocol revision supported by the mobile station.

8 The values for the time and numerical constants used in this section (e.g., T_{20m}, N_{4m}) are
9 specified in Annex D.

10 As illustrated in Figure 2.6-1, mobile station Layer 3 processing consists of the following
11 states:

- 12 • *Mobile Station Initialization State* - In this state, the mobile station selects and
13 acquires a system.
- 14 • *Mobile Station Idle State* - In this state, the mobile station monitors messages on the
15 f-csch.
- 16 • *System Access State* - In this state, the mobile station sends messages to the base
17 station on the r-csch and receives messages from the base station on the f-csch.
- 18 • *Mobile Station Control on the Traffic Channel State* - In this state, the mobile station
19 communicates with the base station using the f/r-dsch and f/r-dtch.

20 After power is applied to the mobile station, it shall enter the *System Determination Substate*
21 of the *Mobile Station Initialization State* with a power-up indication (see 2.6.1.1).

**Figure 2.6-1. Mobile Station Layer 3 Processing States**

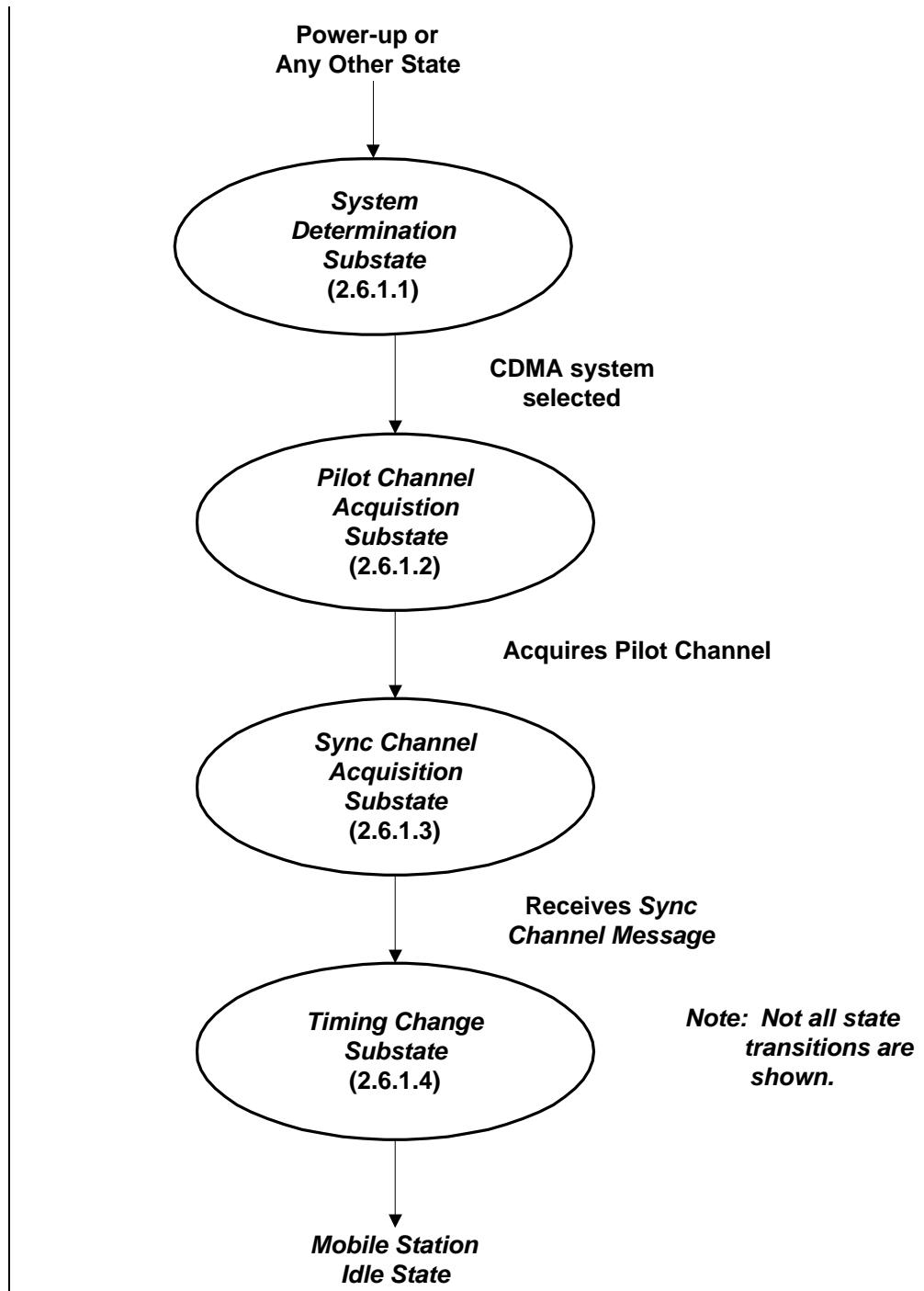
1 2.6.1 Mobile Station Initialization State

2 In this state, the mobile station first selects a system to use. If the selected system is a
3 CDMA system, the mobile station proceeds to acquire and then synchronize to the CDMA
4 system. If the selected system is an analog system, the mobile station begins analog mode
5 operation (see 2.6.1 of [6]).

6 As illustrated in Figure 2.6.1-1, the *Mobile Station Initialization State* consists of the
7 following substates:

- 8 • *System Determination Substate* - In this substate, the mobile station selects which
9 system to use.
- 10 • *Pilot Channel Acquisition Substate* - In this substate, the mobile station acquires the
11 Pilot Channel of a CDMA system.
- 12 • *Sync Channel Acquisition Substate* - In this substate, the mobile station obtains
13 system configuration and timing information for a CDMA system.
- 14 • *Timing Change Substate* - In this substate, the mobile station synchronizes its
15 timing to that of a CDMA system.

16 While in the *Mobile Station Initialization State*, the mobile station shall update all active
17 registration timers as specified in 2.6.5.5.1.2.



1

2

Figure 2.6.1-1. Mobile Station Initialization State

1 2.6.1.1 System Determination Substate

2 In this substate, the mobile station selects the system to use.

3 Upon entering the *System Determination Substate*, the mobile station shall initialize
4 registration parameters as specified in 2.6.5.5.1.1.

5 If the mobile station enters the *System Determination Substate* with a power-up indication,
6 the mobile station shall set RAND_S to 0 (see 2.3.12.1.2), PACA_S to disabled, PACA_CANCEL
7 to '0', the PACA state timer to disabled, NDSS_ORIG_S to disabled, MAX_REDIRECT_DELAY_S
8 to 31, REDIRECTION_S to disabled, all entries of SDB_SO OMIT_S to '0', and T_SLOTTED_S to
9 T74m, ~~KEY_S to NULL, and C_SIC_ENCRYPT_MODE_S to '000'~~. If the mobile station supports
10 analog mode operation in Band Class 0, the mobile station shall set the First-Idle ID status
11 to enabled (see [6]). The mobile station shall select a system in accordance with the custom
12 system selection process (see 2.6.1.1.1) and shall attempt to acquire the selected system
13 (see 2.6.1.1.4).

14 If the mobile station enters the *System Determination Substate* with any indication other
15 than a power-up indication, and if PACA_S is equal to enabled, the mobile station shall also
16 set PACA_S to disabled, PACA_CANCEL to '0', the PACA state timer to disabled, and should
17 indicate to the user that the PACA call has been canceled.

18 If the mobile station enters the *System Determination Substate* with an acquisition failure
19 indication, the mobile station shall perform the following:

- 20 • If REDIRECTION_S is equal to enabled, the mobile station shall attempt to select
21 another system in accordance with the current redirection criteria (see 2.6.1.1.2). If
22 the mobile station is able to select another system, the mobile station shall attempt
23 to acquire the selected system (see 2.6.1.1.4). Otherwise, if the mobile station has
24 exhausted all possible selections using the current redirection criteria, the mobile
25 station shall perform the following:
 - 26 – The mobile station shall set REDIRECTION_S to disabled.
 - 27 – The mobile station shall set RETURN_CAUSE_S to '0001'.
 - 28 – If RETURN_IF_FAIL_S is equal to '1', the mobile station shall attempt to select the
29 system from which it was redirected and shall attempt to acquire the selected
30 system (see 2.6.1.1.4). The precise process for determining how to select the
31 system from which the mobile station was redirected is left to the mobile station
32 manufacturer.
 - 33 – If RETURN_IF_FAIL_S is equal to '0', the mobile station shall select a system other
34 than the system from which it was redirected in accordance with the custom
35 system selection process (see 2.6.1.1.1) and shall attempt to acquire the selected
36 system (see 2.6.1.1.4). The precise process that the mobile station uses to avoid
37 selecting the system from which it was redirected is left to the mobile station
38 manufacturer.

- 1 • If REDIRECTION_S is equal to disabled, the mobile station shall select a system in
2 accordance with the custom system selection process (see 2.6.1.1.1) and shall
3 attempt to acquire the selected system (see 2.6.1.1.4).

4 If the mobile station enters the *System Determination Substate* with a new system
5 indication, the mobile station shall set REDIRECTION_S to disabled. If NDSS_ORIG_S is
6 enabled, the mobile station shall set NDSS_ORIG_S to disabled and should indicate to the
7 user that the call origination has been canceled. The mobile station shall select a system in
8 accordance with the custom system selection process (see 2.6.1.1.1) and shall attempt to
9 acquire the selected system (see 2.6.1.1.4).

10 If the mobile station enters the *System Determination Substate* with a CDMA available
11 indication, the mobile station shall set REDIRECTION_S to disabled. If NDSS_ORIG_S is
12 enabled, the mobile station shall set NDSS_ORIG_S to disabled and should indicate to the
13 user that the call origination is canceled. The mobile station should set CDMACH_S to the
14 CDMA Channel (CDMA_FREQ) specified in the *CDMA Capability Global Action Message* and
15 should attempt to acquire a CDMA system on the specified CDMA channel (see 2.6.1.1.4).
16 If the mobile station does not attempt to acquire a CDMA system on the specified CDMA
17 Channel, the mobile station shall select a system in accordance with the custom system
18 selection process (see 2.6.1.1.1) and shall attempt to acquire the selected system (see
19 2.6.1.1.4).

20 If the mobile station enters the *System Determination Substate* with an additional CDMA
21 available indication, the mobile station shall set REDIRECTION_S to disabled. If NDSS_ORIG_S is
22 enabled, the mobile station shall set NDSS_ORIG_S to disabled and should
23 indicate to the user that the call origination is canceled. The mobile station should set
24 CDMACH_S to the CDMA Channel (CDMA_FREQ) specified in the *CDMA Info Order* and
25 should attempt to acquire a CDMA system on the specified CDMA channel (see 2.6.1.1.4).
26 If the mobile station does not attempt to acquire a CDMA system on the specified CDMA
27 Channel, the mobile station shall select a system in accordance with the custom system
28 selection process (see 2.6.1.1.1) and shall attempt to acquire the selected system (see
29 2.6.1.1.4).

30 If the mobile station enters the *System Determination Substate* with a reselection indication,
31 the mobile station shall set REDIRECTION_S to disabled. If NDSS_ORIG_S is enabled, the
32 mobile station shall set NDSS_ORIG_S to disabled and should indicate to the user that the
33 call origination is canceled. The mobile station shall select a system in accordance with the
34 custom system selection process (see 2.6.1.1.1) and shall attempt to acquire the selected
35 system (see 2.6.1.1.4).

36 If the mobile station enters the *System Determination Substate* with an encryption failure
37 indication, the mobile station shall set REDIRECTION_S to disabled, ENC KEY_S to NULL,
38 D SIG ENCRYPT MODE_S to '000' and C SIG ENCRYPT MODE_S to '000'. If NDSS ORIG_S is
39 enabled, the mobile station shall set NDSS ORIG_S to disabled and should indicate to the
40 user that the call origination is canceled. The mobile station shall select a system in
41 accordance with the custom system selection process (see 2.6.1.1.1) and shall attempt to
42 acquire the selected system (see 2.6.1.1.4).

If the mobile station enters the *System Determination Substate* with a system reselection indication, the mobile station shall set REDIRECTION_S to disabled. If NDSS_ORIG_S is enabled, the mobile station shall set NDSS_ORIG_S to disabled and should indicate to the user that the call origination is canceled. The mobile station should attempt to select a system available for system reselection as specified in 2.6.1.1.3, and should attempt to acquire the selected system (see 2.6.1.1.4). The precise process for determining how to select such a system is left to the mobile station manufacturer. If the mobile station does not attempt to select such a system, the mobile station shall select a system in accordance with the custom system selection process (see 2.6.1.1.1) and shall attempt to acquire the selected system (see 2.6.1.1.4).

If the mobile station enters the *System Determination Substate* with a rescan indication, the mobile station shall set REDIRECTION_S to disabled. If NDSS_ORIG_S is enabled, the mobile station shall set NDSS_ORIG_S to disabled and should indicate to the user that the call origination is canceled. The mobile station shall select a system in accordance with the custom system selection process (see 2.6.1.1.1) and shall attempt to acquire the selected system (see 2.6.1.1.4).

If the mobile station enters the *System Determination Substate* with a protocol mismatch indication, the mobile station shall perform the following:

- If REDIRECTION_S is equal to enabled, the mobile station shall attempt to select another system in accordance with the current redirection criteria (see 2.6.1.1.2). If the mobile station is able to select another system, the mobile station shall attempt to acquire the selected system (see 2.6.1.1.4). Otherwise, if the mobile station has exhausted all possible selections using the current redirection criteria, the mobile station shall perform the following:
 - The mobile station shall set REDIRECTION_S to disabled.
 - The mobile station shall set RETURN_CAUSE_S to '0010'.
 - If RETURN_IF_FAIL_S is equal to '1', the mobile station shall attempt to select the system from which it was redirected and shall attempt to acquire the selected system (see 2.6.1.1.4). The precise process for determining how to select the system from which the mobile station was redirected is left to the mobile station manufacturer.
 - If RETURN_IF_FAIL_S is equal to '0', the mobile station shall select a system other than the system from which it was redirected in accordance with the custom system selection process (see 2.6.1.1.1) and shall attempt to acquire the selected system (see 2.6.1.1.4). The precise process for determining how to avoid the system from which the mobile station was redirected is left to the mobile station manufacturer.
- If REDIRECTION_S is equal to disabled, the mobile station shall select a system in accordance with the custom system selection process (see 2.6.1.1.1) and shall attempt to acquire the selected system (see 2.6.1.1.4).

If the mobile station enters the *System Determination Substate* with a system lost indication, the mobile station shall set REDIRECTION_S to disabled. If NDSS_ORIG_S is enabled, the

mobile station shall set NDSS_ORIG_S to disabled and should indicate to the user that the call origination is canceled. The mobile station should attempt to select the same system that was lost, and should attempt to acquire the selected system (see 2.6.1.1.4). The precise process for determining how to select the same system is left to the mobile station manufacturer. If the mobile station does not attempt to select the same system, the mobile station shall select a system in accordance with the custom system selection process (see 2.6.1.1.1) and shall attempt to acquire the selected system (see 2.6.1.1.4).

If the mobile station enters the *System Determination Substate* with a lock indication, the mobile station shall set REDIRECTION_S to disabled. If NDSS_ORIG_S is enabled, the mobile station shall set NDSS_ORIG_S to disabled and should indicate to the user that the call origination is canceled. The mobile station shall select a system in accordance with the custom system selection process (see 2.6.1.1.1) and shall attempt to acquire the selected system (see 2.6.1.1.4).

If the mobile station enters the *System Determination Substate* with an unlock indication, the mobile station shall set REDIRECTION_S to disabled. If NDSS_ORIG_S is enabled, the mobile station shall set NDSS_ORIG_S to disabled and should indicate to the user that the call origination is canceled. The mobile station shall select a system in accordance with the custom system selection process (see 2.6.1.1.1) and shall attempt to acquire the selected system (see 2.6.1.1.4).

If the mobile station enters the *System Determination Substate* with an access denied indication, the mobile station shall set REDIRECTION_S to disabled. If NDSS_ORIG_S is enabled, the mobile station shall set NDSS_ORIG_S to disabled and should indicate to the user that the call origination is canceled. The mobile station shall select a system in accordance with the custom system selection process (see 2.6.1.1.1) and shall attempt to acquire the selected system (see 2.6.1.1.4).

If the mobile station enters the *System Determination Substate* with an ACCT blocked indication, the mobile station shall set REDIRECTION_S to disabled. If NDSS_ORIG_S is enabled, the mobile station shall set NDSS_ORIG_S to disabled. The mobile station shall select a system in accordance with the custom system selection process (see 2.6.1.1.1) and shall attempt to acquire the selected system (see 2.6.1.1.4).

If the mobile station enters the *System Determination Substate* with an NDSS off indication, the mobile station shall set REDIRECTION_S to disabled. If NDSS_ORIG_S is enabled, the mobile station shall set NDSS_ORIG_S to disabled and should indicate to the user that the call origination is canceled. The mobile station shall select a system in accordance with the custom system selection process (see 2.6.1.1.1) and shall attempt to acquire the selected system (see 2.6.1.1.4).

If the mobile station enters the *System Determination Substate* with a release indication and REDIRECTION_S is equal to enabled, the mobile station shall attempt to select the same system on which the release occurred and shall attempt to acquire the selected system (see 2.6.1.1.4). The precise process for determining how to select the same system is left to the mobile station manufacturer. If REDIRECTION_S is equal to disabled, the mobile station shall select a system in accordance with the custom system selection process (see 2.6.1.1.1)

1 and shall attempt to acquire the selected system (see 2.6.1.1.4). If NDSS_ORIG_S is enabled,
 2 the mobile station shall set NDSS_ORIG_S to disabled.

3 If the mobile station enters the *System Determination Substate* with an error indication, the
 4 mobile station shall set REDIRECTION_S to disabled. If NDSS_ORIG_S is enabled, the mobile
 5 station shall set NDSS_ORIG_S to disabled and should indicate to the user that the call
 6 origination is canceled. The mobile station shall select a system in accordance with the
 7 custom system selection process (see 2.6.1.1.1) and shall attempt to acquire the selected
 8 system (see 2.6.1.1.4).

9 If the mobile station enters the *System Determination Substate* with a redirection indication,
 10 the mobile station shall set REDIRECTION_S to enabled. The mobile station shall delete all
 11 entries from the ZONE_LIST_S and SID_NID_LIST_S. The mobile station shall select a system
 12 in accordance with the current redirection criteria (see 2.6.1.1.2) and shall attempt to
 13 acquire the selected system (see 2.6.1.1.4).

14 If the mobile station enters the *System Determination Substate* with a registration rejected
 15 indication, the mobile station shall perform the following:

- 16 • The mobile station shall delete the newly generated encryption key (if any).
- 17 • If REDIRECTION_S is equal to enabled, the mobile station shall perform the following:
 - 18 – The mobile station shall set REDIRECTION_S to disabled.
 - 19 – The mobile station shall set RETURN_CAUSE_S to '0011'.
 - 20 – If RETURN_IF_FAIL_S is equal to '1', the mobile station shall attempt to select the
 21 system from which it was redirected and shall attempt to acquire the selected
 22 system (see 2.6.1.1.4). The precise process for determining how to select the
 23 system from which the mobile station was redirected is left to the mobile station
 24 manufacturer.
 - 25 – If RETURN_IF_FAIL_S is equal to '0', the mobile station shall select a system other
 26 than the system from which it was redirected in accordance with the custom
 27 system selection process (see 2.6.1.1.1) and shall attempt to acquire the selected
 28 system (see 2.6.1.1.4). The precise process for determining how to avoid the
 29 system from which the mobile station was redirected is left to the mobile station
 30 manufacturer.
- 31 • If REDIRECTION_S is equal to disabled, the mobile station shall select a system in
 32 accordance with the custom system selection process (see 2.6.1.1.1) and shall
 33 attempt to acquire the selected system (see 2.6.1.1.4).

34 If the mobile station enters the *System Determination Substate* with a wrong system
 35 indication, the mobile station shall perform the following:

- 36 • If REDIRECTION_S is equal to enabled, the mobile station shall attempt to select
 37 another system in accordance with the current redirection criteria (see 2.6.1.1.2). If
 38 the mobile station is able to select another system, the mobile station shall attempt
 39 to acquire the selected system (see 2.6.1.1.4). Otherwise, if the mobile station has
 40 exhausted all possible selections using the current redirection criteria, the mobile
 41 station shall perform the following:

- The mobile station shall set REDIRECTION_S to disabled.
 - The mobile station shall set RETURN_CAUSE_S to '0100'.
 - If RETURN_IF_FAIL_S is equal to '1', the mobile station shall attempt to select the system from which it was redirected and shall attempt to acquire the selected system (see 2.6.1.1.4). The precise process for determining how to select the system from which the mobile station was redirected is left to the mobile station manufacturer.
 - If RETURN_IF_FAIL_S is equal to '0', the mobile station shall select a system other than the system from which it was redirected in accordance with the custom system selection process (see 2.6.1.1.1) and shall attempt to acquire the selected system (see 2.6.1.1.4). The precise process for determining how to avoid the system from which the mobile station was redirected is left to the mobile station manufacturer.
- If REDIRECTION_S is equal to disabled, the mobile station shall select a system in accordance with the custom system selection process (see 2.6.1.1.1) and shall attempt to acquire the selected system (see 2.6.1.1.4).

If the mobile station enters the *System Determination Substate* with a wrong network indication, the mobile station shall perform the following:

- If REDIRECTION_S is equal to enabled, the mobile station shall attempt to select another system in accordance with the current redirection criteria (see 2.6.1.1.2). If the mobile station is able to select another system, the mobile station shall attempt to acquire the selected system (see 2.6.1.1.4). Otherwise, if the mobile station has exhausted all possible selections using the current redirection criteria, the mobile station shall perform the following:
 - The mobile station shall set REDIRECTION_S to disabled.
 - The mobile station shall set RETURN_CAUSE_S to '0101'.
 - If RETURN_IF_FAIL_S is equal to '1', the mobile station shall attempt to select the system from which it was redirected and shall attempt to acquire the selected system (see 2.6.1.1.4). The precise process for determining how to select the system from which the mobile station was redirected is left to the mobile station manufacturer.
 - If RETURN_IF_FAIL_S is equal to '0', the mobile station shall select a system other than the system from which it was redirected in accordance with the custom system selection process (see 2.6.1.1.1) and shall attempt to acquire the selected system (see 2.6.1.1.4). The precise process for determining how to avoid the system from which the mobile station was redirected is left to the mobile station manufacturer.
- If REDIRECTION_S is equal to disabled, the mobile station shall select a system in accordance with the custom system selection process (see 2.6.1.1.1) and shall attempt to acquire the selected system (see 2.6.1.1.4).

1 2.6.1.1.1 Custom System Selection Process

2 The precise process for custom system selection is left to the mobile station manufacturer.

3 The mobile station shall perform the custom system selection process as follows:

- 4 • The mobile station shall determine which system to use.
- 5 • If the mobile station is to use a CDMA system, it shall set CDMABAND_S to the band class (see [30]) for the selected system.
- 6 • If the mobile station is to use a CDMA system with CDMABAND_S = '00000' or CDMABAND_S = '00011', it shall perform the following:
 - 7 – If the mobile station is to use System A, it shall set SERVSYS_S to SYS_A. If the mobile station is to use System B, it shall set SERVSYS_S to SYS_B.
 - 8 – The mobile station shall set CDMACH_S either to the Primary or Secondary CDMA Channel number (see 2.1.1.1.1 of [2]) for the selected serving system (SERVSYS_S). If the mobile station fails to acquire a CDMA system on the first CDMA Channel it tries, the mobile station should attempt to acquire on the alternate CDMA Channel (Primary or Secondary) before attempting other alternatives.
- 9 • If the mobile station is to use a CDMA system with CDMABAND_S other than '00000'- 10 or '00011', '00001', CDMABAND_S = '00010', CDMABAND_S = '00100', CDMABAND_S = '00101', CDMABAND_S = '00110', CDMABAND_S = '00111', CDMABAND_S = '01000', or CDMABAND_S = '01001' it shall set CDMACH_S to the CDMA Channel number (see 2.1.1.1.1 of [2]) for the selected system.

22 If the mobile station is to use System A of the 800 MHz analog system, it shall set SERVSYS_S to SYS_A. If the mobile station is to use System B of the 800 MHz analog system, it shall set SERVSYS_S to SYS_B.

25 2.6.1.1.2 System Selection Using Current Redirection Criteria

26 To perform system selection using current redirection criteria, the mobile station shall use information received either in a *Service Redirection Message*, a *Global Service Redirection Message*, or an *Extended Global Service Redirection Message* and stored in the variable REDIRECT_REC_S.

30 If the RECORD_TYPE field of REDIRECT_REC_S is equal to '00000001' and the mobile station supports Band Class 0, the mobile station shall perform system selection as follows:

- 32 • If the SYS_ORDERING field is equal to '000', the mobile station shall make sequential system selections as follows:
 - 33 – The mobile station shall set SERVSYS_S either to SYS_A or SYS_B. The precise process for determining how many system selections to make and for determining whether to use SYS_A or SYS_B is left to the mobile station manufacturer.
- 38 • If the SYS_ORDERING field is equal to '001', the mobile station shall select no more than one system selection as follows:

- The mobile station shall set SERVSYS_S to SYS_A.
- If the SYS_ORDERING field is equal to '010', the mobile station shall select no more than one system selection as follows:
 - The mobile station shall set SERVSYS_S to SYS_B.
- If the SYS_ORDERING field is equal to '011', the mobile station shall make at most two sequential system selections as follows:
 - For the first system selection, the mobile station shall set SERVSYS_S to SYS_A.
 - For the second system selection, the mobile station shall set SERVSYS_S to SYS_B.
- If the SYS_ORDERING field is equal to '100', the mobile station shall make at most 2 sequential system selections as follows:
 - For the first system selection, the mobile station shall set SERVSYS_S to SYS_B.
 - For the second system selection, the mobile station shall set SERVSYS_S to SYS_A.
- If the SYS_ORDERING field is equal to '101', the mobile station shall make at most 2 sequential system selections as follows:
 - For the first system selection, the mobile station shall set SERVSYS_S either to SYS_A or SYS_B. The precise process for determining whether to use SYS_A or SYS_B first is left to the mobile station manufacturer.
 - For the second system selection, the mobile station shall set SERVSYS_S to SYS_B if SYS_A was used for the first selection, or to SYS_A if SYS_B was used for the first selection.

If the RECORD_TYPE field of REDIRECT_REC_S is equal to '00000010', the mobile station shall perform system selection as follows:

- If the mobile station supports CDMA mode operation in the band class identified by the BAND_CLASS field, the mobile station shall make at most n sequential system selections, where n is equal to the value of the NUM_CHANS field, as follows:
 - For the i^{th} system selection, where i ranges from 1 to n , if the mobile station supports operation on the CDMA channel associated with the value of the i^{th} occurrence of the CDMA_CHAN field, the mobile station shall set CDMACH_S to the value of the i^{th} occurrence of the CDMA_CHAN field and shall set CDMABAND_S to the value specified in the BAND_CLASS field. If the mobile station does not support operation on the CDMA Channel associated with the value of the i^{th} occurrence of the CDMA_CHAN field, the mobile station shall not make the i^{th} system selection.

2.6.1.1.3 System Selection Using System Reselection Criteria

The precise process for selecting a system using system reselection criteria is left to the mobile station manufacturer. The mobile station should use information received in the

1 *Neighbor List Message*, *Extended Neighbor List Message*, *General Neighbor List Message*, or
 2 the *Universal Neighbor List Message* to perform the system reselection process as follows:

- 3 • If there are pilots in the Neighbor List on a different Frequency Assignment than
 4 that of the mobile station, the mobile station may select the CDMA system
 5 consisting of these neighbor pilots. If the mobile station is to use a CDMA system, it
 6 shall set CDMABAND_S to the band class (see [30]) for the selected system and shall
 7 set CDMACH_S to the CDMA Channel number (see 2.1.1.1 of [2]) for the selected
 8 system.
- 9 • If NUM_ANALOG_NGHBR_S is not equal to '000', the mobile station may select an
 10 analog system as specified by ANALOG_NGHBR_LIST. If the mobile station is to use
 11 System A of the 800 MHz analog system, it shall set SERVSYS_S to SYS_A. If the
 12 mobile station is to use System B of the 800 MHz analog system, it shall set
 13 SERVSYS_S to SYS_B.

14 2.6.1.1.4 Acquiring the Selected System

15 The mobile station shall attempt to acquire the selected system as follows:

- 16 • If the selected system is an analog system, the mobile station shall enter the
 17 Initialization Task (see 2.6.1 of [6]).
- 18 • If the selected system is a CDMA system, the mobile station shall enter the *Pilot*
 19 *Channel Acquisition Substate*.

20 2.6.1.2 Pilot Channel Acquisition Substate

21 In this substate, the mobile station acquires the Pilot Channel of the selected CDMA
 22 system.

23 Upon entering the *Pilot Channel Acquisition Substate*, the mobile station shall tune to the
 24 CDMA Channel number equal to CDMACH_S, shall set its code channel for the Pilot Channel
 25 (see 3.1.3.1.10 of [2]) and shall search for the Pilot Channel for no longer than T_{20m}
 26 seconds (see Annex D). If the mobile station acquires the Pilot Channel, the mobile station
 27 shall enter the *Sync Channel Acquisition Substate*.

28 If the mobile station determines that it is unlikely to acquire the Pilot Channel within T_{20m}
 29 seconds, the mobile station may enter the *System Determination Substate* with an
 30 acquisition failure indication (see 2.6.1.1). The time, to either acquire the Pilot Channel or
 31 determine that Pilot Channel acquisition is unlikely, shall not exceed T_{20m} seconds (see
 32 Annex D), after which the mobile station shall enter the *System Determination Substate* with
 33 an acquisition failure indication (see 2.6.1.1).

34 2.6.1.3 Sync Channel Acquisition Substate

35 In this substate, the mobile station receives and processes the *Sync Channel Message* to
 36 obtain system configuration and timing information.

37 Upon entering the *Sync Channel Acquisition Substate*, the mobile station shall set its code
 38 channel for the Sync Channel (see [2]).

- 1 If the mobile station does not receive a valid *Sync Channel Message* within T_{21m} seconds,
 2 the mobile station shall enter the *System Determination Substate* with an acquisition failure
 3 indication.
- 4 If the mobile station receives a valid *Sync Channel Message* within T_{21m} seconds, but the
 5 protocol revision level supported by the mobile station ($MOB_P_REV_p$ of the current band
 6 class) is less than the minimum protocol revision level supported by the base station
 7 ($MIN_P_REV_r$), the mobile station shall enter the *System Determination Substate* with a
 8 protocol mismatch indication (see 2.6.1.1).
- 9 If the mobile station receives a valid *Sync Channel Message* within T_{21m} seconds, but the
 10 values of the $PRAT_r$, the $SR1_BRAT_NON_TD_r$, the $SR1_BRAT_TD_r$, or the $SR3_BRAT_r$ fields
 11 are designated as reserved by the protocol revision level supported by the mobile station
 12 ($MOB_P_REV_p$ of the current band class), the mobile station shall enter the *System*
 13 *Determination Substate* with a protocol mismatch indication (see 2.6.1.1).
- 14 If the mobile station receives a valid *Sync Channel Message* within T_{21m} seconds and the
 15 protocol revision level supported by the mobile station ($MOB_P_REV_p$ of the current band
 16 class) is greater than or equal to the minimum protocol revision level supported by the base
 17 station ($MIN_P_REV_r$), the mobile station shall store the following information from the
 18 message:
- 19 • Protocol revision level ($P_REV_S = P_REV_r$)
 - 20 • Minimum protocol revision level ($MIN_P_REV_S = MIN_P_REV_r$)
 - 21 • System identification ($SID_S = SID_r$)
 - 22 • Network identification ($NID_S = NID_r$)
 - 23 • Pilot PN sequence offset index ($PILOT_PN_S = PILOT_PN_r$)
 - 24 • Long code state ($LC_STATE_S = LC_STATE_r$)
 - 25 • System Time ($SYS_TIME_S = SYS_TIME_r$)
 - 26 • Paging Channel data rate ($PRAT_S = PRAT_r$)
 - 27 • Protocol revision level currently in use ($P_REV_IN_USE_S =$ the lesser value of P_REVs
 28 and $MOB_P_REV_p$ of the current band class)
 - 29 • SR1 Non-TD BCCH support indicator ($SR1_BCCH_SUPPORTED_S_NON_TD_INCL_S =$
 30 $SR1_BCCH_SUPPORTED_r_NON_TD_INCL_r$)
 - 31 • SR1 TD BCCH support indicator ($SR1_TD_INCL_S = SR1_TD_INCL_r$)
 - 32 • If $SR1_BCCH_NON_TD_INCL_SUPPORTED_r$ is equal to '1':
 - 33 – $SR1_BRAT_NON_TD_S = SR1_BRAT_NON_TD_r;$
 - 34 – $SR1_CRAT_NON_TD_S = SR1_CRAT_NON_TD_r;$
 - 35 – $BCCH_CODE_CHAN_NON_TD_S = SR1_BCCH_CODE_CHAN_NON_TD_r.$

- 1 • If [SR1_TD_INCL_r is included and is equal to '1'](#) the mobile station supports the
2 Transmit Diversity [indicated by SR1_TD_MODE_r, SR1_TD_INCL_r is included and is](#)
3 [equal to '1'](#):
 - 4 – [SR1_BRAT_TD_S = SR1_BRAT_TD_r](#);
 - 5 – [SR1_CRAT_TD_S = SR1_CRAT_TD_r](#);
 - 6 – [BCCH_CODE_CHAN_TD_S = SR1_BCCH_CODE_CHAN_TD_r](#).
- 7 • [If the mobile station supports the Transmit Diversity, SR1_BCCH_NON_TD_INCL_r is](#)
8 [equal to '1', and SR1_TD_INCL_r is equal to '0'](#):
 - 9 – [SR1_BRAT_TD_S = SR1_BRAT_NON_TD_r](#);
 - 10 – [SR1_CRAT_TD_S = SR1_CRAT_NON_TD_r](#);
 - 11 – [BCCH_CODE_CHAN_TD_S = SR1_BCCH_CODE_CHAN_NON_TD_r](#).
- 12 • SR3 support indicator ($SR3_{INCL_S} = SR3_{INCL_r}$)

13 The mobile station shall ignore any fields at the end of the *Sync Channel Message* that are
14 not defined according to the protocol revision level (MOB_P_REV_p of the current band class)
15 being used by the mobile station.

16 The mobile station may store the following information from the message:

- 17 • Number of leap seconds that have occurred since the start of System Time
18 ($LP_{SEC_S} = LP_{SEC_r}$)
- 19 • Offset of local time from System Time ($LTM_{OFF_S} = LTM_{OFF_r}$)
- 20 • Daylight savings time indicator ($DAYLT_S = DAYLT_r$)

21 If REDIRECTION_S and NDSS_ORIG_S are equal to disabled, the mobile station may enter the
22 *System Determination Substate* with a reselection indication (see 2.6.1.1).

23 If REDIRECTION_S is equal to enabled, the EXPECTED_SID field of REDIRECT_REC_S is not
24 equal to 0, and SID_r is not equal to EXPECTED_SID, the mobile station shall enter the
25 *System Determination Substate* with a wrong system indication (see 2.6.1.1). If
26 REDIRECTION_S is equal to enabled, the EXPECTED_NID field of REDIRECT_REC_S is not
27 equal to 65535, and NID_r is not equal to EXPECTED_NID, the mobile station shall enter the
28 *System Determination Substate* with a wrong network indication.

29 If P_REV_IN_USE_S is less than 6, the mobile station shall set POTENTIAL_CDMACH_S to
30 CDMA_FREQ_r.

31 If P_REV_IN_USE_S is equal to six, [and](#) the mobile station shall perform the following:

- 32 • If the mobile station supports the Quick Paging Channel or any radio configuration
33 in the Radio Configuration Class 2 or 3 (see 1.1.1), the mobile station shall set
34 POTENTIAL_CDMACH_S equal to EXT_CDMA_FREQ_r; otherwise, the mobile station
35 shall set POTENTIAL_CDMACH_S equal to CDMA_FREQ_r.

36 If P_REV_IN_USE_S is greater than six, the mobile station shall perform the following:

- 37 • If the mobile station supports Spreading Rate 3 on the common channels and

- 1 SR3_INCL_S is equal to '1', the mobile station shall set:
- 2 – BRAT_S = SR3_BRAT_r;
- 3 – BCCH_CODE_RATE_S = 1/3;
- 4 – BCCH_S = SR3_BCCH_CODE_CHAN_r;
- 5 – SR3_PRIMARY_PILOT_S = SR3_PRIMARY_PILOT_r;
- 6 – SR3_PILOT_POWER1_S = SR3_PILOT_POWER1_r;
- 7 – SR3_PILOT_POWER2_S = SR3_PILOT_POWER2_r;
- 8 – If SR3_CENTER_FREQ_INCL_r is equal to '1', POTENTIAL_CDMACH_S =
9 SR3_CENTER_FREQ_r; otherwise, POTENTIAL_CDMACH_S = EXT_CDMA_FREQ_r.
- 10 • If the mobile station does not support Spreading Rate 3 on the common channel or
11 if SR3_INCL_S is equal to '0', the mobile station shall perform the following:
- 12 ~~If SR1_BCCH_SUPPORTED_S is equal to '1', the mobile station shall perform the following:~~
- 13 ~~– If SR1_TD_INCL_r is equal to '1' and the mobile station supports the Transmit Diversity mode specified by SR1_TD_MODE_r, the mobile station shall set:~~
- 14 ~~+ If SR1_TD_INCL_r is equal to '1' and the mobile station supports the Transmit Diversity mode specified by SR1_TD_MODE_r, the mobile station shall set:~~
- 15 + SR1_TD_MODE_S = SR1_TD_MODE_r
- 16 + SR1_TD_POWER_LEVEL_S = SR1_TD_POWER_LEVEL_r
- 17 + BRAT_S = SR1_BRAT_TD_r
- 18 + BCCH_CODE_RATE_S = SR1_CRAT_TD_r,
- 19 + BCCH_S = SR1_BCCH_CODE_CHAN_TD_r,
- 20 + POTENTIAL_CDMACH_S = SR1_CDMA_FREQ_TD_r
- 21 ~~– Otherwise, if SR1_BCCH_NON_TD_INCL_r is equal to '1', the mobile station shall set:~~
- 22 ~~+ If SR1_TD_INCL_r is equal to '0', or if SR1_TD_INCL_r is equal to '1' and the mobile station does not support the Transmit Diversity mode specified by SR1_TD_MODE_r, the mobile station shall set:~~
- 23 + BRAT_S = SR1_BRAT_NON_TD_r
- 24 + BCCH_CODE_RATE_S = SR1_CRAT_NON_TD_r,
- 25 + BCCH_S = SR1_BCCH_CODE_CHAN_NON_TD_r,
- 26 + If SR1_NON_TD_FREQ_INCL_r is equal to '1', POTENTIAL_CDMACH_S =
27 SR1_CDMA_FREQ_NON_TD_r; otherwise, POTENTIAL_CDMACH_S =
28 EXT_CDMA_FREQ_r
- 29 ~~– If SR1_BCCH_SUPPORTED_S is equal to '0', the mobile station shall~~

1 perform the following:

- 2 + If the mobile station supports the Quick Paging Channel or any radio
 3 configuration in the Radio Configuration Class 2 or 3 (see 1.1.1), the mobile
 4 station shall set POTENTIAL_CDMACH_S = EXT_CDMA_FREQ_r; otherwise, the
 5 mobile station shall set POTENTIAL_CDMACH_S = CDMA_FREQ_r.

6 If POTENTIAL_CDMACH_S is different from CDMACH_S, the mobile station shall set
 7 CDMACH_S = POTENTIAL_CDMACH_S and then tune to the CDMA Channel (CDMACH_S).

8 The mobile station shall enter the *Timing Change Substate*.

9 2.6.1.4 Timing Change Substate

10 Figure 2.6.1.4-1 illustrates the mobile station timing changes that occur in this substate.
 11 The mobile station synchronizes its long code timing and system timing to those of the
 12 CDMA system, using the PILOT_PN_S, LC_STATE_S, and SYS_TIME_S values obtained from the
 13 received *Sync Channel Message*. SYS_TIME_S is equal to the System Time (see 1.3 of [2])
 14 corresponding to 320 ms past the end of the last 80 ms superframe (see Figure 3.1.3.2.1-1
 15 of [2]) of the received *Sync Channel Message* minus the pilot PN sequence offset.
 16 LC_STATE_S is equal to the system long code state (see 2.1.3.1.12 of [2]) corresponding to
 17 SYS_TIME_S.

18 In the *Timing Change Substate*, the mobile station shall synchronize its long code timing to
 19 the CDMA system long code timing derived from LC_STATE_S, and synchronize its system
 20 timing to the CDMA system timing derived from SYS_TIME_S.

21 The mobile station shall perform the following:

- 22 • If SR1_BCCH_NON_TD_INCL_S, SR1_BCCH_SUPPORTED_S is equal to '1', or if
 SR1_TD_INCL_S is equal to '1' and the mobile supports the transmit diversity mode
 specified by SR1_TD_MODE_S, or if the mobile station supports Spreading Rate 3 on
 the common channel and SR3_INCL_S is equal to '1', the mobile station shall:
 - 26 – Set the stored message sequence numbers CONFIG_MSG_SEQ_S,
 A41_SYS_PAR_MSG_SEQ_S, ACC_MSG_SEQ_S, MC_RR_PAR_MSG_SEQ_S,
 UNI_NGHBR_LST_MSG_SEQ_S, EXT_GLOB_SERV_REDIR_MSG_SEQ_S,
 EXT_CHAN_LST_MSG_SEQ_S, USER_ZONE_ID_MSG_SEQ_S and
 PRI_NGHBR_LST_MSG_SEQ_S variables to NULL (see 2.6.2.2);
 - 31 – Set the index number of the Primary Broadcast Control Channel (BCN) to 1;
 - 32 – Set IMSI_11_12_S and MCC_S to NULL;
 - 33 – Perform registration initialization as specified in 2.6.5.5.1.3; and
 - 34 – If the bits of TMSI_CODE_{S-p} are not all equal to '1' and if SYS_TIME_S exceeds
 TMSI_EXP_TIME_{S-p} × 2¹², the mobile station shall set all the bits of
 TMSI_CODE_{S-p} to '1'.
- 37 • Otherwise, the mobile station shall:
 - 38 – Set PAGECH_S to the Primary Paging Channel (see 3.1.3.4 of [2]);

- 1 - Set PAGE_CHAN_S to '1';
 2 - Set the stored message sequence numbers CONFIG_MSG_SEQ_S,
 3 SYS_PAR_MSG_SEQ_S, ACC_MSG_SEQ_S, NGHBR_LST_MSG_SEQ_S,
 4 GEN_NGHBR_LST_MSG_SEQ_S, EXT_NGHBR_LST_MSG_SEQ_S,
 5 CHAN_LST_MSG_SEQ_S, EXT_SYS_PAR_MSG_SEQ_S,
 6 GLOB_SERV_REDIR_MSG_SEQ_S, EXT_GLOB_SERV_REDIR_MSG_SEQ_S,
 7 EXT_CHAN_LST_MSG_SEQ_S, USER_ZONE_ID_MSG_SEQ_S and
 8 PRI_NGHBR_LST_MSG_SEQ_S variables to NULL (see 2.6.2.2);
 9 - Set IMSI_11_12_S and MCC_S to NULL;
 10 - Perform registration initialization as specified in 2.6.5.5.1.3; and
 11 - If the bits of TMSI_CODE_{S-p} are not all equal to '1' and if SYS_TIME_S exceeds
 12 TMSI_EXP_TIME_{S-p} × 2¹², the mobile station shall set all the bits of
 13 TMSI_CODE_{S-p} to '1'.
 14 The mobile station shall enter the *Mobile Station Idle State*.

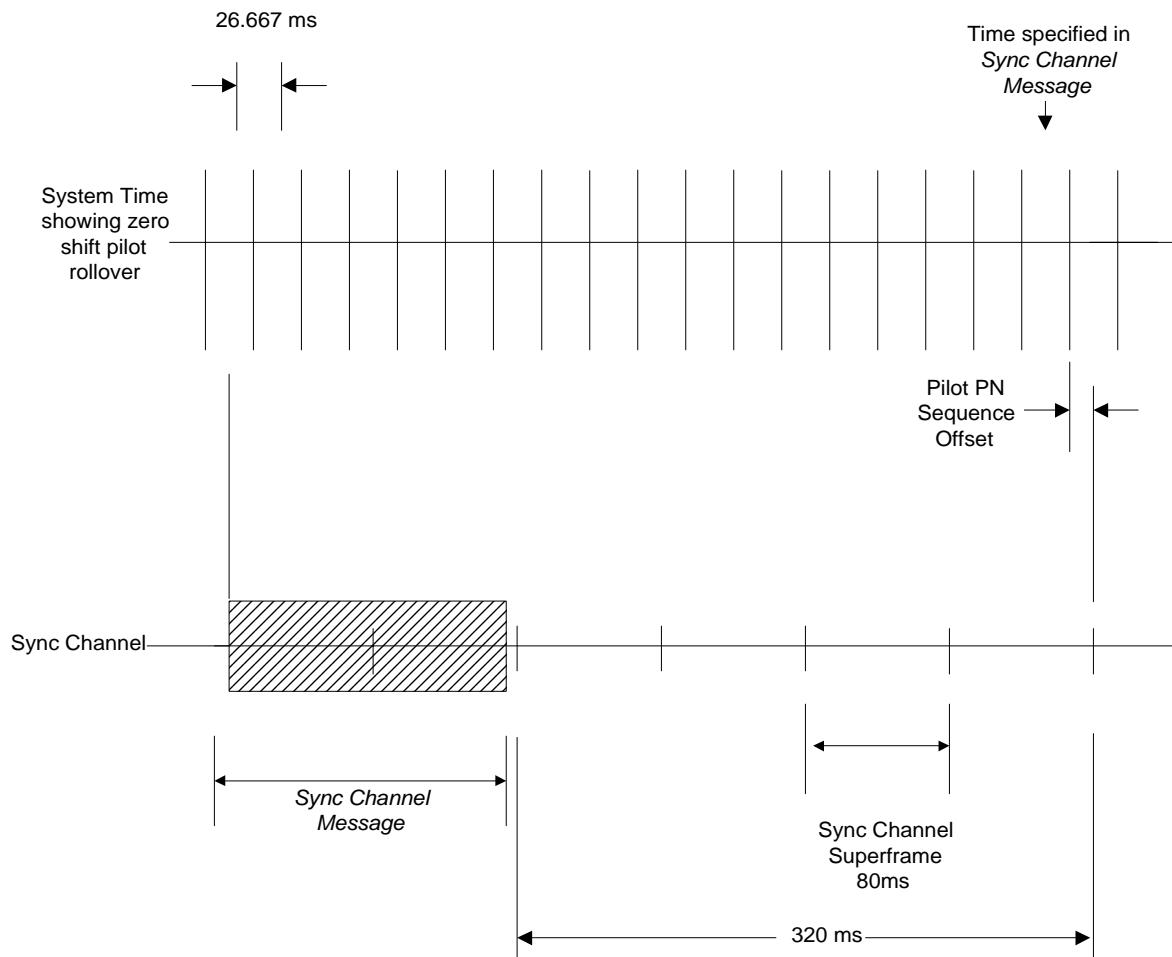


Figure 2.6.1.4-1. Mobile Station Internal Timing

1 2.6.2 Mobile Station Idle State

2 In this state, the mobile station monitors the Paging Channel or the Quick Paging Channel
 3 or Forward Common Control Channel/Primary Broadcast Control Channel. The mobile
 4 station can receive messages, receive an incoming call (mobile station terminated call),
 5 initiate a call (mobile station originated call), cancel a PACA call, initiate a registration, or
 6 initiate a message transmission.

7 The mobile station may monitor the Quick Paging Channel to determine if it should receive
 8 messages from the Paging Channel or Forward Common Control Channel.

9 Upon entering the *Mobile Station Idle State* from the *Mobile Station Initialization State*, the
 10 mobile station shall perform the following:

- 11 • If $\text{SR1_BCCH_NON_TD_INCL}_S$ $\text{SR1_BCCH_SUPPORTED}_S$ is equal to '1', or if
 12 SR1_TD_INCL_S is equal to '1' and the mobile station supports the transmit diversity
 13 mode specified by SR1_TD_MODE_S , or if the mobile station supports Spreading Rate
 14 3 on the common channel and SR3_INCL_S is equal to '1', the mobile station shall
 15 perform the following:
 - 16 - Set its Primary Broadcast Control Channel code channel to BCCH_S ,
 - 17 - Set the Primary Broadcast Control Channel data rate as determined by BRAT_S ,
 - 18 - Set the Primary Broadcast Control Channel code rate as determined by
 19 BCCH_CODE_RATE_S .
 - 20 - Set SLOTTED_S to YES if T_SLOTTED_S is equal to '00000000' or if the mobile
 21 station does not support the slotted timer; otherwise enable the TMS_Slotted
 22 timer with the duration specified by T_SLOTTED_S and set SLOTTED_S to NO, and
 - 23 - Perform common channel supervision as specified in 2.6.2.1.1.4.
- 24 • Otherwise, the mobile station shall perform the following:
 - 25 - Set its code channel to PAGECH_S ,
 - 26 - Set the Paging Channel data rate as determined by PRAT_S ,
 - 27 - Set SLOTTED_S to YES if T_SLOTTED_S is equal to '00000000' or if the mobile
 28 station does not support the slotted timer; otherwise enable the TMS_Slotted
 29 timer with the duration specified by T_SLOTTED_S and set SLOTTED_S to NO, and
 - 30 - Perform Paging Channel supervision as specified in 2.6.2.1.1.4.

31 If REDIRECTION_S , PACA_S , and NDSS_ORIG_S are equal to disabled, the mobile station may
 32 exit the *Mobile Station Idle State* at any time and enter the *System Determination Substate* of
 33 the *Mobile Station Initialization State* with a reselection indication (see 2.6.1.1).

34 While in the *Mobile Station Idle State*, the mobile station shall perform the following
 35 procedures:

- 36 • The mobile station shall perform Paging Channel or Forward Common Control
 37 Channel monitoring procedures as specified in 2.6.2.1.1.

- 1 • The mobile station shall perform message acknowledgment procedures as specified
2 in 2.1.1.2 and 2.1.2.1 of [4].
- 3 • The mobile station shall perform registration procedures as specified in 2.6.2.1.3.
- 4 • The mobile station shall perform idle handoff procedures as specified in 2.6.2.1.4.
- 5 • The mobile station shall perform system reselection procedures as specified in
6 2.6.2.1.6.
- 7 • The mobile station shall perform the *Response to Overhead Information Operation* as
8 specified in 2.6.2.2 whenever the mobile station receives a system overhead message
9 (*ANSI-41 System Parameters Message*, *Enhanced Access Parameters Message*,
10 *Extended CDMA Channel List Message*, *MC-RR Parameters Message*, *Universal*
11 *Neighbor List Message*, *ANSI-41 RAND Message*, *System Parameters Message*, *CDMA*
12 *Channel List Message*, *Extended System Parameters Message*, *Neighbor List Message*,
13 *Extended Neighbor List Message*, *General Neighbor List Message*, *Global Service*
14 *Redirection Message*, *Extended Global Service Redirection Message*, *User Zone*
15 *Identification Message*, *Private Neighbor List Message*, or *Access Parameters*
16 *Message*).
- 17 • The mobile station shall perform the *Mobile Station Page Match Operation* as
18 specified in 2.6.2.3 whenever it receives a mobile station-directed page.
- 19 • The mobile station shall perform the *Mobile Station Order and Message Processing*
20 *Operation* as specified in 2.6.2.4 whenever a message or order directed to the mobile
21 station is received other than a mobile station-directed page.
- 22 • The mobile station shall set NDSS_ORIG_S to disabled if directed by the user to
23 cancel the call origination.
- 24 • The mobile station shall perform the *Mobile Station Origination Operation* as specified
25 in 2.6.2.5 if directed by the user to initiate a call, or if NDSS_ORIG_S is equal to
26 enabled.
- 27 • The mobile station shall not send any subsequent *Origination Message* containing
28 the same packet data service option until the system time stored in
29 RETRY_DELAY_S[001]. At the system time stored in RETRY_DELAY_S[001], the mobile
30 station shall reset RETRY_DELAY_S[001] to 0.
- 31 • The mobile station shall perform the *Mobile Station PACA Cancel Operation* as
32 specified in 2.6.2.8, if PACA_S is equal to enabled and any one of the following
33 conditions is met:
 - 34 – PACA_CANCEL is equal to '1'; or
 - 35 – The mobile station is directed by the user to cancel the PACA call.
- 36 • If the PACA state timer expires, the mobile station shall perform the following:
 - 37 – The mobile station should enter the *Update Overhead Information Substate* of the
38 *System Access State* (see 2.6.3) with an origination indication within T_{33m}
39 seconds to re-originate the PACA call.

- Otherwise, the mobile station shall perform the *Mobile Station PACA Cancel Operation* as specified in 2.6.2.8.
- If the mobile station supports *Data Burst Message* transmission, it shall perform the *Mobile Station Message Transmission Operation* as specified in 2.6.2.6 if directed by the user to transmit a message.
- If the mobile station supports the *Device Information Message* on the r-csch, AUTO_MSG_SUPPORTED_S is equal to '1', and the mobile station has detected a change in hook status [since the last time when the mobile station sent hook status information](#), the mobile station shall perform the following:
 - If the autonomous message timer has expired [or is disabled](#), the mobile station shall perform the *Mobile Station Message Transmission Operation* as specified in 2.6.2.6.
 - If the autonomous message timer has not expired, the mobile station shall set the autonomous message timer equal to AUTO_MSG_INTERVAL_S and shall restart the timer.
- The mobile station shall perform the *Mobile Station Power-Down Operation* as specified in 2.6.2.7 if directed by the user to power down.
- If the bits of TMSI_CODE_{S-p} are not all equal to '1' and if System Time (in 80 ms units) exceeds TMSI_EXP_TIME_{S-p} × 2¹², the mobile station shall set all the bits of TMSI_CODE_{S-p} to '1' within T66m seconds.
- If the full-TMSI timer expires or has expired, the mobile station shall set all the bits of TMSI_CODE_{S-p} to '1'. The mobile station shall update the registration variables as described in 2.6.5.5.2.5.

2.6.2.1 Idle Procedures

2.6.2.1.1 Forward Channel Monitoring Procedures

2.6.2.1.1 General Overview

The Paging Channel is divided into 80 ms slots called Paging Channel slots. Paging and control messages for a mobile station operating in the non-slotted mode can be received in any of the Paging Channel slots; therefore, the non-slotted mode of operation requires the mobile station to monitor all slots.

The Forward Common Control Channel is divided into 80 ms slots called Forward Common Control Channel slots. Paging and mobile directed messages for a mobile station operating in the non-slotted mode can be received in any of the Forward Common Control Channel slots. The overhead messages can be received on the Primary Broadcast Control Channel. Therefore, the non-slotted mode of operation requires the mobile station to continuously monitor the Forward Common Control Channel/Primary Broadcast Control Channel.

¹ 2.6.2.1.1.1 General Overview for Individually Addressed Messages

² The Paging Channel or the Forward Common Control Channel protocol provides for
³ scheduling the transmission of messages for a specific mobile station in certain assigned
⁴ slots. Support of this feature is optional and may be enabled by each mobile station. A
⁵ mobile station that monitors the Paging Channel or the Forward Common Control Channel
⁶ only during certain assigned slots is referred to as operating in the slotted mode. During
⁷ the slots in which the Paging Channel or the Forward Common Control Channel is not
⁸ being monitored, the mobile station can stop or reduce its processing for power
⁹ conservation. A mobile station may not operate in the slotted mode in any state except the
¹⁰ *Mobile Station Idle State*.

¹¹ A mobile station operating in the slotted mode generally monitors the Paging Channel or the
¹² Forward Common Control Channel for one or two slots per slot cycle. The mobile station
¹³ can specify its preferred slot cycle using the SLOT_CYCLE_INDEX field in the *Registration*
¹⁴ *Message*, *Origination Message*, or *Page Response Message*. The mobile station can also
¹⁵ specify its preferred slot cycle using the SLOT_CYCLE_INDEX field of the *Terminal*
¹⁶ *Information* record of the *Status Response Message* or the *Extended Status Response*
¹⁷ *Message*. In addition, the mobile station can also specify its preferred slot cycle using the
¹⁸ SLOT_CYCLE_INDEX field of the *Terminal Information* record of the *Status Response*
¹⁹ *Message* or the *Status Message* when in the *Mobile Station Control on the Traffic Channel*
²⁰ *State*. The length of the slot cycle, T, in units of 1.28 seconds,¹ is given by

$$T = 2^i,$$

²² where i is the selected slot cycle index (see 2.6.2.1.1.3).

²³ A mobile station operating in the slotted mode may optionally monitor additional slots to
²⁴ receive broadcast messages and/or broadcast pages (see 2.6.2.1.1.3.3 and 2.6.2.1.1.3.4).

²⁵ There are $16 \times T$ slots in a slot cycle.

²⁶ SLOT_NUM is the Paging Channel or the Forward Common Control Channel slot number,
²⁷ modulo the maximum length slot cycle (2048 slots). That is, the value of SLOT_NUM is

$$\text{SLOT_NUM} = \lfloor t/4 \rfloor \bmod 2048,$$

²⁹ where t is the System Time in frames. For each mobile station, the starting times of its slot
³⁰ cycles are offset from the slot in which SLOT_NUM equals zero by a fixed, randomly selected
³¹ number of slots as specified in 2.6.2.1.1.3.

³² Figure 2.6.2.1.1.1-1 shows an example for a slot cycle length of 1.28 seconds, in which the
³³ computed value of PGSLOT (see 2.6.2.1.1.3) is equal to 6, so that one of the mobile station's
³⁴ slot cycles begins when SLOT_NUM equals 6. The mobile station begins monitoring the
³⁵ Paging Channel or the Forward Common Control Channel at the start of the slot in which
³⁶ SLOT_NUM equals 6. The next slot in which the mobile station must begin monitoring the

¹ The minimum length slot cycle consists of 16 slots of 80 ms each, hence 1.28 seconds.

- 1 Paging Channel or the Forward Common Control Channel is 16 slots later, i.e., the slot in
 2 which SLOT_NUM is 22.

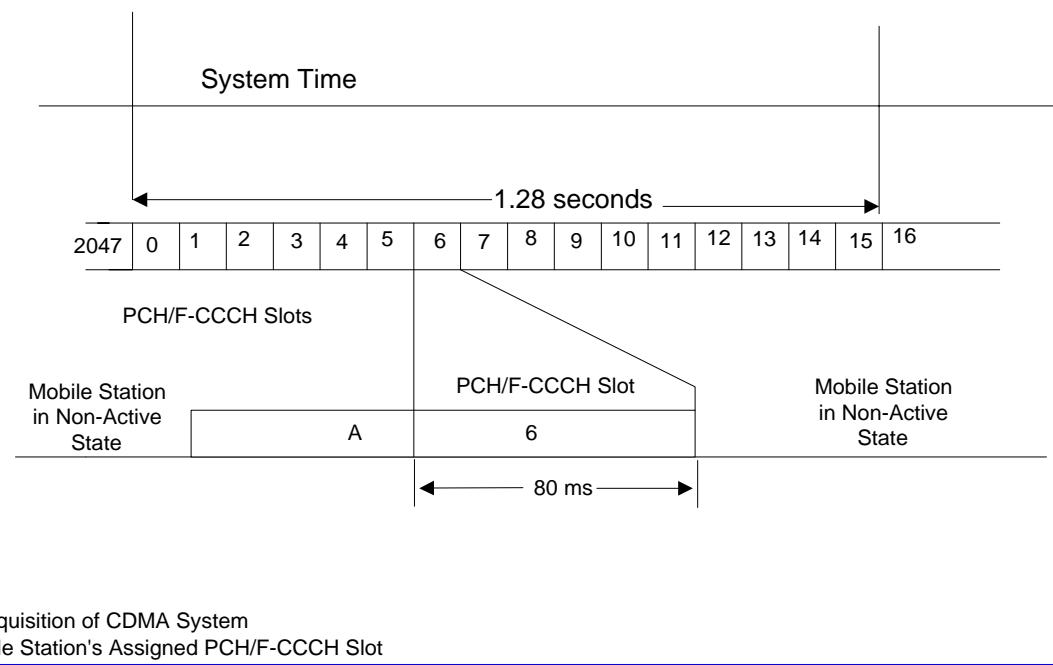


Figure 2.6.2.1.1.1-1. Mobile Station Idle Slotted Mode Structure Example

2.6.2.1.1.1 Overview of Stopping Monitoring via the General Page Message

Layer 3 determines when a mobile station operating in the slotted mode may stop monitoring the Paging Channel or the Forward Common Control Channel based upon indications received from Layer 2 (see 2.1.2.2.4.1 of [4]). When the *General Page Message* is used, Layer 2 determines whether there is an address mismatch or a broadcast address mismatch, based upon the address information received in the *General Page Message*. Based upon the address mismatch and broadcast address mismatch indications received from Layer 2, Layer 3 can determine when no further messages or records addressed to an individual mobile station will be present in the slot.

A *General Page Message* contains four fields: CLASS_0_DONE, CLASS_1_DONE, TMSI_DONE, and ORDERED_TMSIS, which indicate when a mobile station operating in the slotted mode may stop monitoring the Paging Channel or the Forward Common Control Channel.

When CLASS_0_DONE is set to '1' during a mobile station's assigned slot and the mobile station is operating in the slotted mode, no further messages or records addressed by a class 0 IMSI will be directed to the mobile station during the current slot. When CLASS_1_DONE is set to '1' during a mobile station's assigned slot and the mobile station is operating in the slotted mode, no further messages or records addressed by a class 1 IMSI will be directed to the mobile station during the current slot. Similarly, when TMSI_DONE is set to '1' during a mobile station's assigned slot and the mobile station is operating in the

1 slotted mode, no further messages or records addressed by a TMSI will be directed to the
 2 mobile station during the current slot.

3 The field ORDERED_TMSIS, when set to '1' during a mobile station's assigned slot,
 4 indicates that the base station has ordered TMSI page records directed to mobile stations
 5 operating in the slotted mode so that the resulting TMSI_CODE values are in ascending
 6 order in the *General Page Messages* in the slot.

7 A mobile station which is operating in the slotted mode, has a class 0 IMSI assigned, and
 8 does not have a TMSI assigned (all the bits of TMSI_CODE_{s-p} are equal to '1'), may stop
 9 monitoring the Paging Channel or the Forward Common Control Channel after processing a
 10 *General Page Message* containing CLASS_0_DONE equal to '1'. Similarly, a mobile station
 11 which is operating in the slotted mode, has a class 1 IMSI assigned, and does not have a
 12 TMSI assigned (all the bits of TMSI_CODE_{s-p} are equal to '1'), may stop monitoring the
 13 Paging Channel or the Forward Common Control Channel after processing a *General Page*
 14 *Message* containing CLASS_1_DONE equal to '1'.

15 A mobile station which is operating in the slotted mode, has a class 0 IMSI assigned, and
 16 has a TMSI assigned (the bits of TMSI_CODE_{s-p} are not all equal to '1'), may stop
 17 monitoring the Paging Channel or the Forward Common Control Channel after processing a
 18 *General Page Message* containing both CLASS_0_DONE equal to '1' and TMSI_DONE equal
 19 to '1'. Similarly, a mobile station which is operating in the slotted mode, has a class 1 IMSI
 20 assigned, and has a TMSI assigned (the bits of TMSI_CODE_{s-p} are not all equal to '1'), may
 21 stop monitoring the Paging Channel or the Forward Common Control Channel after
 22 processing a *General Page Message* containing both CLASS_1_DONE equal to '1' and
 23 TMSI_DONE equal to '1'.

24 If ORDERED_TMSIS is equal to '1' and CLASS_0_DONE is equal to '1', a mobile station
 25 which has a class 0 IMSI assigned, is operating in the slotted mode, and has a TMSI
 26 assigned (the bits of TMSI_CODE_{s-p} are not all equal to '1'), may stop monitoring the Paging
 27 Channel or the Forward Common Control Channel after processing a page record with a
 28 TMSI_CODE value of higher numerical value than TMSI_CODE_{s-p}.

29 If ORDERED_TMSIS is equal to '1' and CLASS_1_DONE is equal to '1', a mobile station
 30 which has a class 1 IMSI assigned, is operating in the slotted mode, and has a TMSI
 31 assigned (the bits of TMSI_CODE_{s-p} are not all equal to '1'), may stop monitoring the Paging
 32 Channel or the Forward Common Control Channel after processing a page record with a
 33 TMSI_CODE value of higher numerical value than TMSI_CODE_{s-p}.

34 The mobile station continues to monitor the Paging Channel or the Forward Common
 35 Control Channel for one additional slot unless, within its assigned slot, the mobile station
 36 receives a *General Page Message* containing the appropriate indicator permitting it to stop
 37 monitoring the Paging Channel or the Forward Common Control Channel (CLASS_0_DONE,
 38 CLASS_1_DONE, TMSI_DONE, or ORDERED_TMSIS equal to '1', whichever is appropriate).
 39 This allows the base station to carry over a message begun in the assigned slot into the
 40 following slot, if necessary.

1 2.6.2.1.1.1.2 Overview of Stopping Monitoring via the Universal Page Message

2 Layer 3 determines when a mobile station operating in the slotted mode may stop
 3 monitoring the Forward Common Control Channel based upon indications from Layer 2
 4 (see 2.1.2.2.4.2 of [4]). When the *Universal Page Message* is used on the Forward
 5 Common Control Channel, Layer 2 determines whether there is an address mismatch or a
 6 broadcast address mismatch, based upon the address information received in the *Universal*
 7 *Page Message*. Based upon the address mismatch and broadcast address mismatch
 8 indications received from Layer 2, Layer 3 can determine when no further messages or
 9 records addressed to an individual mobile station will be present in the slot.

10 The *Universal Page Message* contains the READ_NEXT_SLOT field, which, when equal to '1'
 11 and received in an assigned slot, indicates to a mobile station that it is to monitor the
 12 Forward Common Control Channel in time to receive the first bit of the slot following the
 13 assigned slot. This allows the base station to use both an assigned slot and the following
 14 slot for pages if all of the pages for an assigned slot cannot be fit into the assigned slot. The
 15 *Universal Page Message* also contains the READ_NEXT_SLOT_BCAST field, which, when
 16 equal to '1' and received in an assigned slot or broadcast slot, indicates to a mobile station
 17 configured to receive broadcast messages that it is to monitor the Forward Common Control
 18 Channel in time to receive the first bit of the subsequent slot. This allows the base station
 19 to use the subsequent slot for enhanced broadcast pages if all of the enhanced broadcast
 20 pages for an assigned slot or broadcast slot cannot be fit into the slot.

21 2.6.2.1.1.2 Overview of Broadcast Messages on Paging Channel

22 The Paging Channel protocol provides two methods for the transmission of broadcast
 23 messages. Each method enables mobile stations operating in the slotted mode or in the
 24 non-slotted mode to receive broadcast messages. A broadcast message on the Paging
 25 Channel is a *Data Burst Message* that has a broadcast address type. A mobile station
 26 operating in the slotted mode has assigned slots that it monitors to receive Paging Channel
 27 messages (see 2.6.2.1.1.1). A broadcast page is a record within a *General Page Message*
 28 that has a broadcast address type. A base station may transmit a broadcast page in an
 29 assigned slot to inform mobile stations monitoring that slot that a broadcast message will
 30 be transmitted in a predetermined subsequent slot. A slot that a mobile station monitors in
 31 order to receive either a broadcast page or a broadcast message is referred to as a broadcast
 32 slot.

33 2.6.2.1.1.2.1 Method 1: Multi-Slot Broadcast Message Transmission

34 According to this method, a broadcast message is sent in a sufficient number of assigned
 35 slots such that it may be received by all mobile stations that are operating in the slotted
 36 mode.

37 Figure 2.6.2.1.1.2.1-1 shows an example for the case when the maximum slot cycle index
 38 is equal to 0. In this example, the broadcast message fits in a single slot. The *Data Burst*
 39 *Message* is transmitted in 16 consecutive slots.

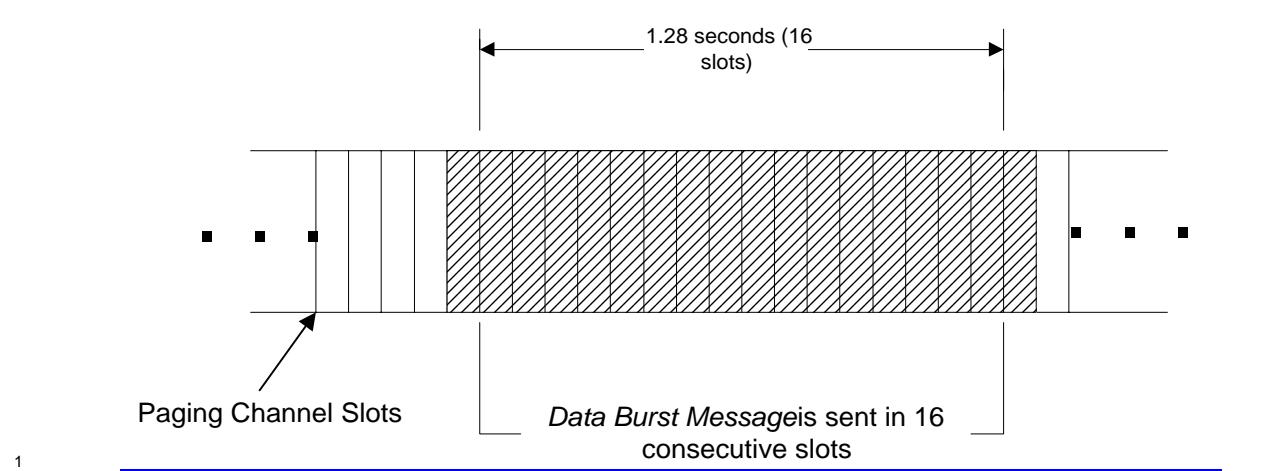


Figure 2.6.2.1.1.2.1-1. Multi-Slot Broadcast Message Transmission Example

2.6.2.1.1.2.2 Method 2: Periodic Broadcast Paging

According to this method, mobile stations configured to receive broadcast messages monitor a specific broadcast slot (the first slot of a broadcast paging cycle; see 2.6.2.1.3.3). There are two methods of sending broadcast messages used with Periodic Broadcast Paging.

If all of the broadcast messages to be transmitted fit within the first slot of a broadcast paging cycle, they may all be transmitted in this broadcast slot. If there is a single broadcast message to be transmitted, it may be transmitted beginning in this broadcast slot.

Alternately, one or more broadcast pages may be transmitted in the first slot of a broadcast paging cycle. Each broadcast page is associated with a subsequent broadcast slot. For each broadcast page, an associated broadcast message may be transmitted in the associated subsequent broadcast slot. The broadcast slot for the associated broadcast message is determined according to the position of the broadcast page within the *General Page Message* transmitted in the first slot of the broadcast paging cycle.

Figure 2.6.2.1.1.2.2-1 shows an example of Periodic Broadcast Paging when the broadcast index is set to 1. A *General Page Message* containing three broadcast pages is transmitted in the first slot of the broadcast paging cycle. For each of the three broadcast pages, a *Data Burst Message* is transmitted in a subsequent slot.

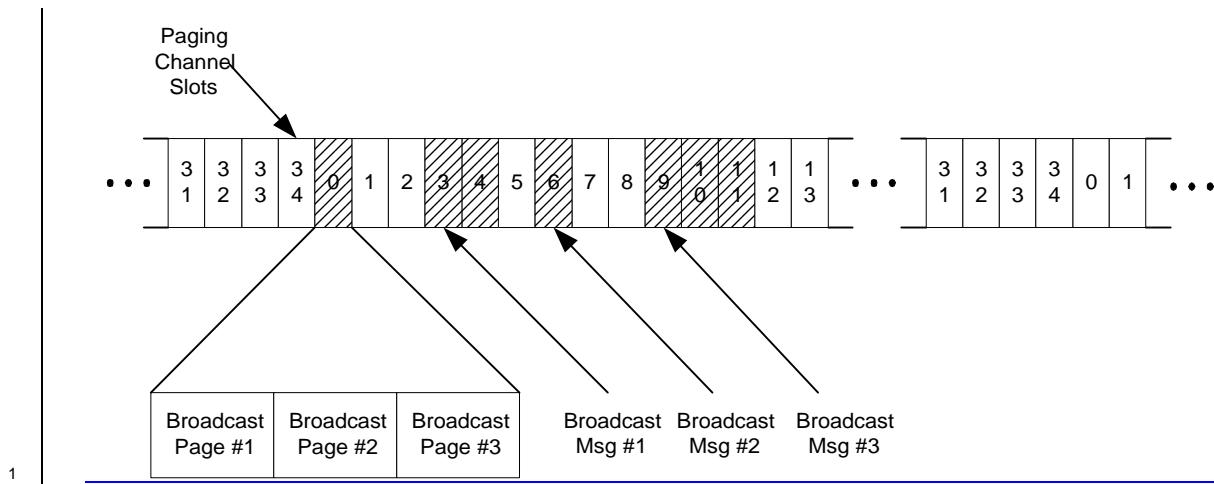


Figure 2.6.2.1.1.2.2-1. Periodic Broadcast Paging Example

2.6.2.1.1.1.3 Overview of Broadcast Messages on Broadcast Control Channel

The Broadcast Control Channel/Forward Common Control Channel protocol provides two methods for the transmission of broadcast messages. Each method enables mobile stations operating in the slotted mode or in the non-slotted mode to receive broadcast messages on the Broadcast Control Channel. A broadcast message on the Broadcast Control Channel is a *Data Burst Message* that has a broadcast address type. A mobile station operating in the slotted mode has assigned Forward Common Control Channel slots that it monitors to receive Forward Common Control Channel messages (see 2.6.2.1.1.1). A mobile station operating in the slotted mode and configured to receive broadcast messages may also have special assigned Forward Common Control Channel slots, called broadcast slots, that it monitors to receive enhanced broadcast pages. An enhanced broadcast page is a record within a *General Page Message* or a *Universal Page Message* that has a broadcast address type and that includes broadcast message scheduling information. A base station may transmit an enhanced broadcast page in an assigned Forward Common Control Channel slot, or in a broadcast slot, to inform mobile stations that a broadcast message will be transmitted in a specified Broadcast Control Channel slot. The enhanced broadcast page identifies the Broadcast Control Channel and the slot the mobile station is to monitor to receive the broadcast message.

2.6.2.1.1.3.1 Method 1: Multi-Slot Enhanced Broadcast Paging

According to this method, an enhanced broadcast page is sent in a sufficient number of assigned slots on the Forward Common Control Channel such that it may be received by all mobile stations that are operating in the slotted mode.

Figure 2.6.2.1.1.3.1-1 shows an example for the case when the maximum slot cycle index is equal to 0. The enhanced broadcast page is transmitted in 16 consecutive slots.

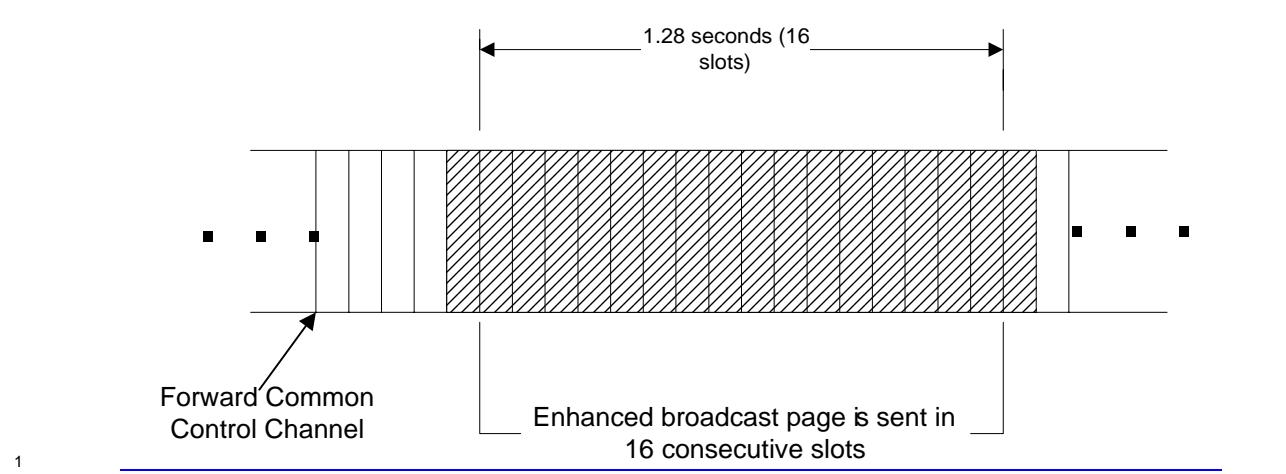


Figure 2.6.2.1.1.3.1-1. Multi-Slot Enhanced Broadcast Paging Example

3

2.6.2.1.1.3.2 Method 2: Periodic Enhanced Broadcast Paging

5 According to this method, mobile stations configured to receive broadcast messages monitor
6 a specific broadcast slot (the first slot of a broadcast paging cycle).

7 One or more enhanced broadcast pages may be transmitted in the first slot of a broadcast
8 paging cycle and/or in the subsequent slot. Each enhanced broadcast page is associated
9 with a subsequent broadcast slot. The broadcast slot for the associated broadcast message
10 is determined according to a time offset specified in the enhanced broadcast page. In
11 addition, a broadcast slot for a repeat of the broadcast message can be specified via a time
12 offset from the slot of the first broadcast message.

13 2.6.2.1.1.2 Non-Slotted Mode Requirements

14 A mobile station operating in the non-slotted mode shall monitor the Paging Channel or the
15 Forward Common Control Channel/Primary Broadcast Control Channel at all times. If the
16 mobile station declares a loss of the Paging Channel or the Forward Common Control
17 Channel/Primary Broadcast Control Channel (see 2.6.2.1.1.4), the mobile station shall
18 enter the *System Determination Substate* of the *Mobile Station Initialization State* with a
19 system lost indication (see 2.6.1.1).

20 When a mobile station monitors the Paging Channel or the Forward Common Control
21 Channel in any state other than the *Mobile Station Idle State*, it shall operate in the non-
22 slotted mode.

23 A mobile station monitoring the Paging Channel shall operate in the non-slotted mode when
24 $PACAS_S$ is equal to enabled.

25 A mobile station monitoring the Paging Channel shall operate in the non-slotted mode when
26 $SLOTTED_S$ is equal to NO.

27 2.6.2.1.1.3 Slotted Mode Requirements

28 A mobile station monitoring the Paging Channel shall not operate in the slotted mode if any

1 of the of the following conditions are true:

- 2 • SLOTTED_S is equal to NO,
- 3 • Bit 5 of the station class mark is set to '0' (see 2.3.3),
- 4 • PACA_S is equal to enabled, or
- 5 • The mobile station's configuration parameters are not current (see 2.6.2.2).

6 A mobile station monitoring the Forward Common Control Channel shall not operate in the
7 slotted mode if either of the following conditions is true:

- 8 • Bit 5 of the station class mark is set to '0' (see 2.3.3), or
- 9 • The mobile station's configuration parameters are not current (see 2.6.2.2).

10 A mobile station monitoring the Forward Common Control Channel with bit 5 of the station
11 class mark set to '1' shall monitor all Forward Common Control Channel slots (see
12 2.6.2.1.1.3.1) if either of the following conditions is true:

- 13 • SLOTTED_S is equal to NO, or
- 14 • PACA_S is equal to enabled.

15 During operation in the slotted mode, the mobile station shall ensure that its stored
16 configuration parameter values are current (see 2.6.2.2).

17 If the mobile station declares a loss of the Paging Channel or the Forward Common Control
18 Channel/Primary Broadcast Control Channel (see 2.6.2.1.1.4), the mobile station shall
19 enter the *System Determination Substate* of the *Mobile Station Initialization State* with a
20 system lost indication (see 2.6.1.1).

21 2.6.2.1.1.3.1 Monitoring Assigned Slots

22 If the mobile station does not support Quick Paging Channel operation or if
23 QPCH_SUPPORTED_S = '0', the mobile station shall monitor the Paging Channel or the
24 Forward Common Control Channel in each of its assigned slots.

25 If the mobile station supports Quick Paging Channel operation and if QPCH_SUPPORTED_S
26 = '1', for each of its assigned slots, the mobile station shall perform the following:

- 27 • The mobile station should check its assigned paging indicators in the complete
28 Quick Paging Channel slot immediately preceding its assigned Paging Channel or
29 Forward Common Control Channel slot, as specified in 2.6.2.1.2.1; the mobile
30 station shall monitor the assigned Paging Channel or Forward Common Control
31 Channel slot if the paging indicators meet the conditions specified in 2.6.2.1.2.2.
- 32 • If the mobile station does not check its assigned paging indicators, the mobile
33 station shall monitor its assigned Paging Channel or Forward Common Control
34 Channel slot.

35 If the mobile station supports Quick Paging Channel operation, the mobile station is
36 configured to receive broadcast messages, BCAST_INDEX_S is not equal to '000', and
37 QPCH_BI_SUPPORTED_S equals '1', then for each of its assigned broadcast slots on the
38 Forward Common Control Channel, the mobile station shall perform the following:

- 1 • The mobile station should check the broadcast indicators in the complete Quick
2 Paging Channel broadcast slot immediately preceding its assigned broadcast slot, as
3 specified in 2.6.2.1.1.3.3.
- 4 • The mobile station should receive its assigned broadcast slot on the Forward
5 Common Control Channel if the broadcast indicators meet the conditions specified
6 in 2.6.2.1.2.1.

7 The mobile station shall monitor each slot following an assigned slot in which the mobile
8 station received a *Universal Page Message* with READ_NEXT_SLOT equal to '1', and shall
9 begin monitoring the Forward Common Control Channel in time to receive the first bit of
10 the slot. If the mobile station is configured to receive broadcast messages, it shall monitor
11 each slot following an assigned slot in which the mobile station received a *Universal Page*
12 *Message* with READ_NEXT_SLOT_BCAST equal to '1', and shall begin monitoring the
13 Forward Common Control Channel in time to receive the first bit of the slot.

14 If SLOTTED_S is equal to NO or PACA_S is equal to enabled, the mobile station may stop
15 monitoring a Forward Common Control Channel slot when Layer 3 receives an address
16 mismatch indication from Layer 2. When the mobile station stops monitoring a Forward
17 Common Control Channel slot when SLOTTED_S is equal to NO or PACA_S is equal to
18 enabled, the mobile station shall begin monitoring the subsequent Forward Common
19 Control Channel slot in time to receive the first bit of the slot.

20 If the mobile station monitors a Paging Channel or Forward Common Control Channel slot,
21 it shall begin monitoring the Paging Channel or the Forward Common Control Channel in
22 time to receive the first bit of the slot. If the mobile station is not configured to receive
23 broadcast addresses, the mobile station shall continue to monitor the Paging Channel or
24 the Forward Common Control Channel until one of the following conditions is satisfied:

- 25 • Layer 3 receives an address mismatch indication from Layer 2 (see 2.1.2.2.2.4 of
26 [4]); or
- 27 • The mobile station monitors the assigned slot and the slot following the assigned
28 slot, and the mobile station receives at least one valid message (see 2.1.2.4.2 of [4]).

29 If the mobile station is configured to receive broadcast addresses and the mobile station is
30 monitoring a Paging Channel, the mobile station shall continue to monitor the Paging
31 Channel until one of the preceding conditions is satisfied and should monitor the Paging
32 Channel until Layer 3 receives a broadcast address mismatch indication from Layer 2 (see
33 2.1.2.2.2.4 of [4]).

34 If the mobile station is configured to receive broadcast addresses and the mobile station is
35 monitoring a Forward Common Control Channel Channel, the mobile station shall continue
36 to monitor the the Forward Common Control Channel until one of the preceding conditions
37 is satisfied and should monitor the Forward Common Control Channel until Layer 3
38 receives a broadcast address mismatch indication from Layer 2 (see 2.1.2.2.2.4 of [4]).

39 The mobile station shall monitor each slot following a broadcast slot in which the mobile
40 station received a *Universal Page Message* with READ_NEXT_SLOT_BCAST equal to '1', and
41 shall begin monitoring the Forward Common Control Channel in time to receive the first bit
42 of the slot.

1 For each broadcast slot monitored to receive broadcast pages or broadcast messages that is
 2 not one of its assigned slots, the mobile station should begin monitoring the Paging
 3 Channel or the Forward Common Control Channel in the first bit of the broadcast slot. The
 4 mobile station should continue to monitor the Paging Channel or the Forward Common
 5 Control Channel until one of the following conditions is satisfied:

- 6 • Layer 3 receives a broadcast address mismatch indication from Layer 2; or
- 7 • The mobile station monitors the Paging Channel or the Forward Common Control
 8 Channel to receive all messages beginning in the broadcast slot and in the slot
 9 following the broadcast slot, and the mobile station receives at least one valid
 10 message (see 2.2.2.3.2 of [4]).

11 To determine its assigned slots, the mobile station shall use the hash function specified in
 12 2.6.7.1 to select a number, PG SLOT, in the range 0 to 2047 (spanning the maximum slot
 13 cycle length, which is 163.84 seconds). The mobile station's assigned slots shall be those
 14 slots in which

$$15 \lfloor t/4 \rfloor - PG SLOT \bmod (16 \times T) = 0,$$

16 where t is the System Time in frames and T is the slot cycle length in units of 1.28 seconds
 17 given by

$$18 T = 2^i,$$

19 where i is the slot cycle index.

20 For each slot on the Broadcast Control Channel monitored to receive broadcast messages,
 21 the mobile station should begin monitoring the Broadcast Control Channel in the first bit of
 22 the slot. The mobile station should continue to monitor the Broadcast Control Channel
 23 until one of the following conditions is satisfied:

- 24 • The mobile station has monitored all frames of a Broadcast Control Channel slot
 25 and the frame quality for all of the frames of the slot was insufficient; or
- 26 • The mobile station monitors the Broadcast Control Channel slot specified by the
 27 enhanced broadcast page and the slot did not contain an SCI bit set to '1' (see [4]).
- 28 • The mobile station has received a broadcast *Data Burst Message* having the same
 29 BURST_TYPE and broadcast address as the enhanced broadcast page which
 30 announced the *Data Burst Message*.

31 2.6.2.1.1.3.2 Determination of the Slot Cycle Index

32 If the SID and NID of the current base station (SID_S and NID_S , as stored from the *System
 33 Parameters Message* or *ANSI-41 System Parameters Message*) do not match any entry of
 34 $SID_NID_LIST_S$, the mobile station shall use a slot cycle index no greater than the smaller
 35 of $MAX_SLOT_CYCLE_INDEX_S$ and 1; otherwise, the mobile station shall use a slot cycle
 36 index no greater than $SLOT_CYCLE_INDEX_S$ (see 2.6.2.2.1.6).

37 If the mobile station is directed by the user to modify the preferred slot cycle index
 38 ($SLOT_CYCLE_INDEX_p$), the mobile station shall perform parameter-change registration
 39 (see 2.6.5.1.6).

1 2.6.2.1.1.3.3 Slot Cycles for Broadcast Message Transmission

2 2.6.2.1.1.3.3.1 Slot Cycles for Broadcast Message Transmission on the Paging Channel

3 Distribution of broadcast messages relies on specially defined Paging Channel slot cycles.

4 The definitions are as follows:

5 *Maximum paging cycle:* On the Paging Channel, a maximum paging cycle is a Paging
6 Channel slot cycle (see 2.6.2.1.1.3.1) having a duration of M slots such that:

$$7 \quad M = 2^i \times 16, \quad 0 \leq i \leq 7$$

8 where $i = \text{MAX_SLOT_CYCLE_INDEX}_S$ as received in the *System Parameters Message*.

9 The first slot of each maximum paging cycle is any Paging Channel slot in which

$$10 \quad \lfloor t/4 \rfloor \bmod M = 0,$$

11 where t represents system time in frames.

12 *Broadcast paging cycle:* On the Paging Channel, a broadcast paging cycle is a Paging
13 Channel slot cycle (see 2.6.2.1.1.3.1) having a duration of B + 3 slots where:

$$14 \quad B = 2^i \times 16, \quad 1 \leq i \leq 7$$

15 where $i = \text{BCAST_INDEX}_S$ as received in the *Extended System Parameters Message*, or set
16 by default when the *Extended System Parameters Message* is not sent.

17 The first slot of each broadcast paging cycle is any Paging Channel slot in which

$$18 \quad \lfloor t/4 \rfloor \bmod (B + 3) = 0,$$

19 where t represents system time in frames.

20 2.6.2.1.1.3.3.2 Slot Cycles for Broadcast Message Transmission on the Forward Common
21 Control Channel

22 Distribution of broadcast messages relies on specially defined Forward Common Control
23 Channel slot cycles. The definitions are as follows:

24 *Maximum paging cycle:* On the Forward Common Control Channel, a maximum paging
25 cycle is a Forward Common Channel slot cycle (see 2.6.2.1.1.3.1) having a duration of M
26 slots such that:

$$27 \quad M = 2^i \times 16, \quad 0 \leq i \leq 7$$

28 where $i = \text{MAX_SLOT_CYCLE_INDEX}_S$ as received in the *MC-RR Parameters Message*.

29 The first slot of each maximum paging cycle is any Forward Common Control Channel slot
30 in which

$$31 \quad \lfloor t/4 \rfloor \bmod M = 0,$$

1 where t represents system time in frames.

2 *Broadcast paging cycle*: On the Forward Common Control Channel, a broadcast paging
3 cycle is a Forward Common Control Channel slot cycle (see 2.6.2.1.1.3.1) having a duration
4 of B + 7 slots where:

5
$$B = 2^{1+i} \times 16, 1 \leq i \leq 7$$

6 where $i = \text{BCAST_INDEX}_S$ as received in the *MC-RR Parameters Message*.

7 The first slot of each broadcast paging cycle is any Forward Common Control Channel slot
8 in which

9
$$\lfloor t/4 \rfloor \bmod (B + 7) = 0,$$

10 where t represents system time in frames.

11 2.6.2.1.1.3.4 Monitoring Paging Channel Broadcasts

12 The following requirements apply to mobile stations monitoring the Paging Channel and
13 supporting the reception of broadcast messages.

14 If BCAST_INDEX_S is equal to '000', the mobile station shall monitor only its assigned Paging
15 Channel slots (see 2.6.2.1.1.3.1).

16 If BCAST_INDEX_S is not equal to '000', and the mobile station is configured to receive
17 messages addressed to broadcast addresses, the mobile station should also monitor the
18 Paging Channel beginning with the first slot of each broadcast paging cycle (see
19 2.6.2.1.1.3.3).

20 If the mobile station receives a broadcast page containing a burst type and broadcast
21 address that the mobile station has been configured to receive (see 2.6.2.3), the mobile
22 station should monitor the slot in which the corresponding broadcast Paging Channel
23 message will be sent, determined as follows:

- 24 • The mobile station shall consider a broadcast page to have been received in the
25 paging slot in which the *General Page Message* containing the broadcast page
26 began.
- 27 • If BCAST_INDEX_S is not equal to '000', the paging slot containing the broadcast
28 page is defined as the reference slot.
- 29 • Let n represent the ordinal number of the broadcast page relative to other broadcast
30 pages that are contained in the same *General Page Message* (n = 1, 2, 3,...). The
31 mobile station should monitor the Paging Channel slot that occurs $n \times 3$ paging
32 slots after the reference slot.

33 After receiving a broadcast message or a broadcast page and a corresponding broadcast
34 Paging Channel message when BCAST_INDEX_S is not equal to '000', the mobile station
35 should discard all further broadcast pages and all further broadcast Paging Channel
36 messages containing the same BURST_TYPE and BC_ADDR fields that are received within
37 $4 \times (B + 3)$ paging slots of the first paging slot in the broadcast paging cycle in which the

1 broadcast page or broadcast message was first received. ($B + 3$ is the duration of the
2 broadcast paging cycle as defined in 2.6.2.1.1.3.3).

3 **2.6.2.1.1.3.5 Support of Broadcast Delivery Options on the Paging Channel**

4 A mobile station configured to receive broadcast messages shall support reception of
5 broadcast messages transmitted using Multi-Slot Broadcast Message Transmission (see
6 3.6.2.4.1.2.1.1).

7 A mobile station configured to receive broadcast messages shall support reception of
8 broadcast messages transmitted using Periodic Broadcast Paging (see 3.6.2.4.1.2.1.2).

9 **2.6.2.1.1.3.6 Monitoring the Forward Common Control Channel for the Enhanced
10 Broadcast Page**

11 The following requirements apply to mobile stations monitoring the Forward Common
12 Control Channel and supporting the reception of broadcast messages.

13 If $BCAST_INDEX_S$ is equal to '000', the mobile station shall monitor only its assigned Quick
14 Paging Channel slots or its assigned Forward Common Control Channel slots (see 2.6.2.1.2)
15 for enhanced broadcast pages.

16 If $BCAST_INDEX_S$ is not equal to '000', and the mobile station is configured to receive
17 messages addressed to broadcast addresses, the mobile station should also monitor the
18 Quick Paging Channel broadcast slots or the Forward Common Control Channel broadcast
19 slots (see 2.6.2.1.2) beginning with the first slot of each broadcast paging cycle.

20 If the mobile station receives an enhanced broadcast page containing a burst type and
21 broadcast address that the mobile station has been configured to receive, the mobile station
22 should monitor at least one Broadcast Control Channel slot in which the corresponding
23 broadcast message will be sent, determined as follows:

- 24 • The mobile station shall monitor the Broadcast Control Channel slot which begins
25 $40\text{ ms} \times (1 + \text{TIME_OFFSET})$ later than the beginning of the slot in which the
26 message containing the enhanced broadcast page began or the Broadcast Control
27 Channel slot which begins $40\text{ ms} \times (1 + \text{REPEAT_TIME_OFFSET})$ later than the
28 Broadcast Control Channel slot in which the first transmission began.

29 After receiving an enhanced broadcast page and a corresponding broadcast message when
30 $BCAST_INDEX_S$ is not equal to '000', the mobile station should discard all further enhanced
31 broadcast pages containing the same BURST_TYPE and having the same broadcast address
32 that are received within $4 \times (B + 7)$ slots of the first slot in the broadcast paging cycle in
33 which the enhanced broadcast page was received. ($B + 7$ is the duration of the broadcast
34 paging cycle as defined in 2.6.2.1.1.3.3.1). The mobile station should ignore broadcast
35 messages for which a corresponding enhanced broadcast page was not received.

36 If the mobile station received an enhanced broadcast page and a corresponding broadcast
37 message, and the broadcast message announced by a pending enhanced broadcast page
38 containing the same BURST_TYPE and having the same broadcast address has not yet been
39 received, the mobile station shall ignore the pending enhanced broadcast page.

1 2.6.2.1.3.7 Support of Broadcast Delivery Options on the Forward Common Control
2 Channel/Broadcast Control Channel

3 A mobile station configured to receive broadcast messages shall support reception of
4 broadcast messages transmitted using Multi-Slot Enhanced Broadcast Paging (see
5 2.6.2.1.1.3.1).

6 A mobile station configured to receive broadcast messages shall support reception of
7 broadcast messages transmitted using Periodic Enhanced Broadcast Paging (see
8 2.6.2.1.1.3.2).

9 **2.6.2.1.4 Common Channel Supervision**

10 The mobile station shall monitor the Paging Channel, the Forward Common Control
11 Channel, or the Primary Broadcast Control Channel as specified in 2.6.2.1.1. The mobile
12 station shall set a timer for T_{30m} seconds whenever it begins to monitor the Paging
13 Channel, the Forward Common Control Channel, or the Primary Broadcast Control
14 Channel. The mobile station shall reset the timer for T_{30m} seconds whenever it gets an
15 indication that a valid message was received on the Paging Channel, the Forward Common
16 Control Channel, or the Primary Broadcast Control Channel, whether addressed to the
17 mobile station or not (see 2.1.2.3.2 of [4]). The mobile station shall disable the timer when
18 it is not monitoring the Paging Channel, the Forward Common Control Channel, or the
19 Primary Broadcast Control Channel. If the timer expires, the mobile station shall declare a
20 loss of the Paging Channel, the Forward Common Control Channel, or the Primary
21 Broadcast Control Channel.

22 **2.6.2.1.2 Quick Paging Channel Monitoring Procedures**

23 **2.6.2.1.2.1 Overview**

24 The Quick Paging Channel is divided into 80 ms slots called Quick Paging Channel slots.

25 The Quick Paging Channel protocol provides for scheduling the transmission of paging
26 indicators for a mobile station in Quick Paging Channel slots assigned to the mobile station.
27 Support of this feature is optional.

28 The Quick Paging Channel protocol provides for scheduling the transmission of configuration
29 change indicators for mobile stations in Quick Paging Channel slots. Support of this
30 feature is optional.

31 The Quick Paging Channel protocol provides for scheduling the transmission of broadcast
32 indicators for mobile stations in Quick Paging Channel broadcast slots. Support of this
33 feature is optional.

34 If the mobile station is operating in the slotted mode and it supports the Quick Paging
35 Channel, and QPCH_SUPPORTED_s is equal to '1', the mobile station monitors paging
36 indicators on the Quick Paging Channel as follows:

37 The mobile station's assigned Quick Paging Channel slots are offset from its assigned
38 Paging Channel slots or its assigned Forward Common Control Channel slots by 100 ms, as
39 shown in Figure 2.6.2.1.2.1-1. Two paging indicators are assigned to a mobile station in its

1 assigned Quick Paging Channel slot. In the following, t^* is the start time of the mobile
 2 station's assigned Paging Channel or Forward Common Control Channel slot. According to
 3 the hash function specified in 2.6.7.1, paging indicators are assigned as follows:

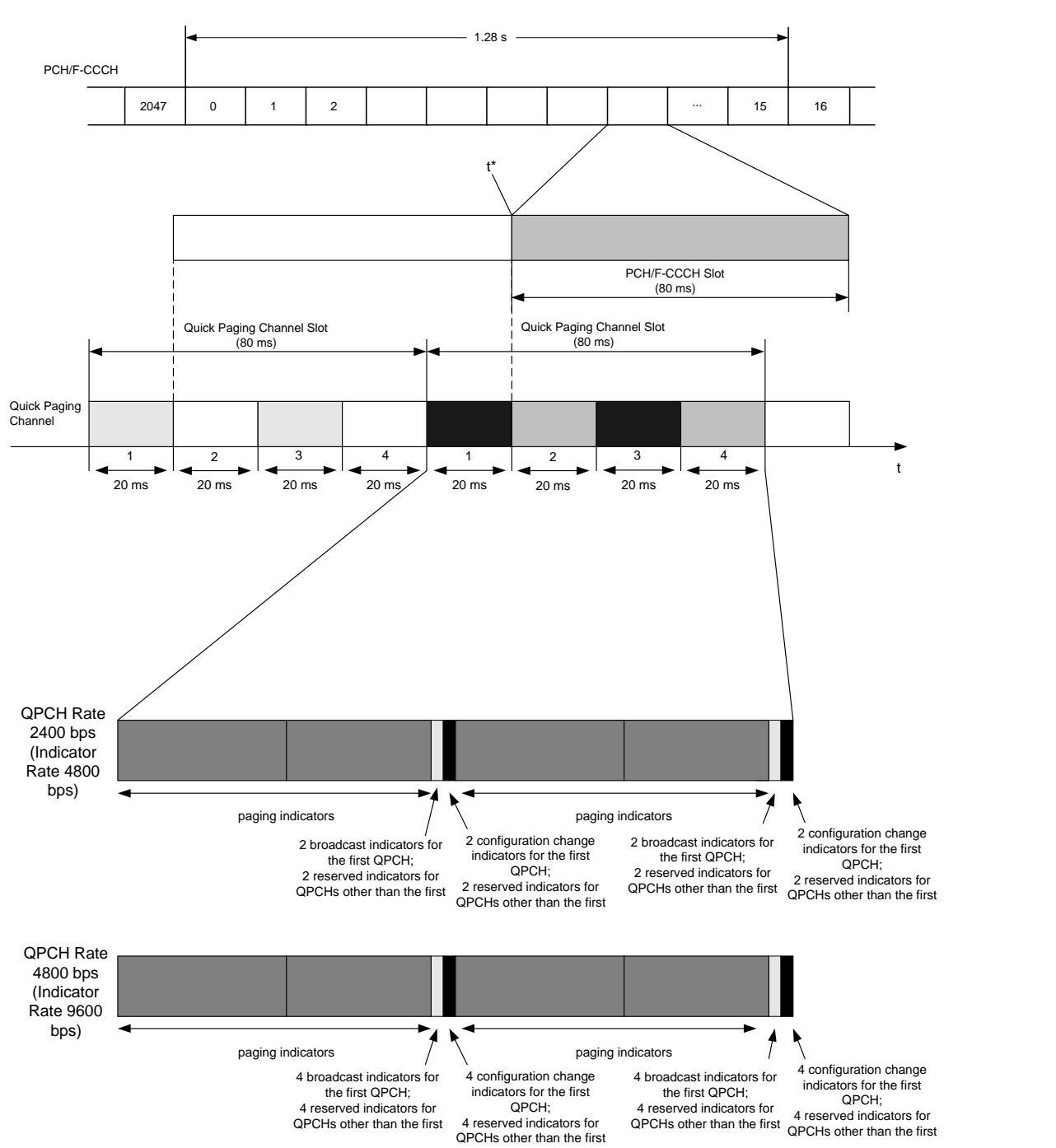
- 4 • The first paging indicator for the mobile station is assigned between (t^*-100) ms and
 5 (t^*-80) ms (marked as 1 in Figure 2.6.2.1.2.1-1) and the second paging indicator is
 6 assigned between (t^*-60) ms and (t^*-40) ms (marked as 3 in the figure); or
- 7 • The first paging indicator for the mobile station is assigned between (t^*-80) ms and
 8 (t^*-60) ms (marked as 2 in the figure) and the second paging indicator is assigned
 9 between (t^*-40) ms and (t^*-20) ms (marked as 4 in the figure).

10 If the mobile station is operating in the slotted mode and it supports the Quick Paging
 11 Channel, the mobile station can, when performing an idle handoff to a base station whose
 12 Paging Channel or Forward Common Control Channel/Primary Broadcast Control Channel
 13 has recently been monitored, monitor one or more configuration change indicators.
 14 Configuration change indicators are scheduled every 40 ms on the first Quick Paging
 15 Channel.

16 If the mobile station is operating in the slotted mode, is configured to receive the broadcast
 17 messages, supports the Quick Paging Channel, $BCAST_INDEX_S$ is not equal to '000',
 18 $QPCH_SUPPORTED_S$ is equal to '1', and $QPCH_BI_SUPPORTED_S$ is equal to '1', the mobile
 19 station monitors broadcast indicators on the Quick Paging Channel as follows:

- 20 • The mobile station's assigned Quick Paging Channel broadcast slots are offset from
 21 its assigned Forward Common Control Channel broadcast slots by 100 ms, as
 22 shown in Figure 2.6.2.1.2.1-1.
- 23 • The mobile station monitors one or more broadcast indicators in an assigned Quick
 24 Paging Channel broadcast slot.

25

**Figure 2.6.2.1.2.1-1. Quick Paging Channel Timeline**

1 2.6.2.1.2.2 Requirements

2 A mobile station operating in the slotted mode should monitor the paging indicators in the
3 mobile station's assigned Quick Paging Channel slot if all of the following conditions hold:

- 4 • The mobile station supports the Quick Paging Channel;
- 5 • QPCH_SUPPORTED_S = '1'; and
- 6 • The mobile station is not monitoring the Paging Channel or the Forward Common
7 Control Channel.

8 The mobile station's assigned Quick Paging Channel slots shall be those slots in which

$$9 \quad \lfloor (t+5)/4 \rfloor - \text{PGSLOT} \bmod (16 \times T) = 0.$$

10 where t is the System Time in frames, PGSLOT is selected in the range 0 to 2047 by using
11 the hash function specified in 2.6.7.1, and T is the slot cycle length in units of 1.28 seconds
12 such that

$$13 \quad T = 2^i,$$

14 and i is the slot cycle index.

15 To determine the position of the mobile station's two assigned paging indicators respective
16 to the beginning of the mobile station's assigned Quick Paging Channel slot, the mobile
17 station shall use the hash function specified in 2.6.7.1. The R1 and R2 outputs of the
18 hashing algorithm correspond to an indicator bit position relative to the beginning of the
19 Quick Paging Channel slot. The hashing algorithm is so devised that two paging indicators
20 (R1 and R2) for a mobile station will be in the first and third quarter slot or the second and
21 fourth quarter slot.

22 If the mobile station checks assigned paging indicators, the mobile station shall perform the
23 following:

- 24 • If the mobile station detects that one of the paging indicators is set to "OFF", the
25 mobile station need not detect another paging indicator.
- 26 • If the mobile station does not detect that at least one of the paging indicators is set
27 to "OFF", the mobile station shall monitor its assigned Paging Channel or Forward
28 Common Control Channel slot immediately following its assigned Quick Paging
29 Channel slot.²

30 When performing an idle handoff to a base station whose Paging Channel or Forward
31 Common Control Channel was previously monitored, a mobile station operating in the
32 slotted mode should monitor one or more configuration change indicators on the first Quick

² A case for which the mobile station may not be able to detect that at least one of the paging indicators is set to "OFF" is for a mobile station that misses a part of or its entire Quick Paging Channel slot during overhead information update. In this case, the mobile station monitors its assigned Paging Channel slot.

- 1 Paging Channel for the new base station if all of the following conditions hold:
- 2 • The mobile station supports the Quick Paging Channel;
- 3 • The mobile station has knowledge that the new base station supports the Quick
- 4 Paging Channel;
- 5 • The mobile station has knowledge that the new base station supports configuration
- 6 change indicators,
- 7 • The mobile station is not monitoring the Paging Channel or the Forward Common
- 8 Control Channel; and
- 9 • No more than T_{31m} seconds have elapsed since the mobile station last received a
- 10 valid message on the new Paging Channel or the new Forward Common Control
- 11 Channel.

12 Before monitoring a configuration change indicator, the mobile station shall perform the

13 following:

- 14 • The mobile station shall set $\text{ASSIGNED_QPAGECH}_S$ equal to QPAGECH_S , and
- 15 • The mobile station shall set QPAGECH_S equal to 1.

16 Before monitoring a paging indicator subsequent to monitoring a configuration change

17 indicator, the mobile station shall set QPAGECH_S equal to $\text{ASSIGNED_QPAGECH}_S$.

18 If the Quick Paging Channel data rate is 2400 bps (indicator rate is 4800 bps), the bit

19 positions of the mobile station's first pair of configuration change indicators shall be the

20 last two bits in the first 40 ms half of a Quick Paging Channel slot. The bit positions of the

21 mobile station's second pair of configuration change indicators shall be the last two bits in

22 a Quick Paging Channel slot.

23 If the Quick Paging Channel data rate is 4800 bps (indicator rate is 9600 bps), the bit

24 positions of the mobile station's first four configuration change indicators shall be the last

25 four bits in the first 40 ms half of a Quick Paging Channel slot. The bit positions of the

26 mobile station's second four configuration change indicators shall be the last four bits in a

27 Quick Paging Channel slot.

28 If the mobile station monitors a configuration change indicator and determines that it is set

29 to "OFF", the mobile station can enter or remain in the slotted mode after an idle handoff

30 (see 2.6.2.1.4.2).

31 If a mobile station is operating in the slotted mode and is configured to receive broadcast

32 messages, it should monitor the broadcast indicators in the mobile station's assigned Quick

33 Paging Channel broadcast slot if all of the following conditions hold:

- 34 • The mobile station supports the Quick Paging Channel;
- 35 • BCAST_INDEX_S is not equal to '000'
- 36 • $\text{QPCH_BI_SUPPORTED}_S = '1'$; and
- 37 • The mobile station is not monitoring the Forward Common Control Channel or the
- 38 Primary Broadcast Control Channel.

1 The mobile station's assigned Quick Paging Channel broadcast slots shall be those slots in
 2 which

$$3 \lfloor (t+5)/4 \rfloor \bmod (B + 7) = 0.$$

4 where t is the System Time in frames, and B is the broadcast paging cycle such that B =
 5 $2^{1+i} \times 16$, $1 \leq i \leq 7$ and i = BCAST_INDEX_S as received in the *MC-RR Parameters Message*.

6 The mobile station should monitor one or more broadcast indicators on the Quick Paging
 7 Channel. If the Quick Paging Channel data rate is 2400 bps (indicator rate is 4800 bps),
 8 the bit positions of the mobile station's first pair of broadcast indicators shall be the two
 9 bits prior to the last two bits in the first 40 ms half of a Quick Paging Channel slot. The bit
 10 positions of the mobile station's second pair of broadcast indicators shall be the two bits
 11 prior to the last two bits in a Quick Paging Channel slot.

12 If the Quick Paging Channel data rate 4800 bps (indicator rate is 9600 bps), the bit
 13 positions of the mobile station's first four broadcast indicators shall be the four bits prior to
 14 the last four bits in the first 40 ms half of a Quick Paging Channel slot. The bit positions of
 15 the mobile station's second four broadcast indicators shall be the four bits prior to the last
 16 four bits in a Quick Paging Channel slot.

17 If the mobile station monitors broadcast indicators and determines that they are not set to
 18 "OFF", the mobile station should perform the following:

- 19 • The mobile station should receive its assigned broadcast slot on the Forward
 20 Common Control Channel immediately following its assigned Quick Paging Channel
 21 broadcast slot.

22 2.6.2.1.3 Registration

23 While in the *Mobile Station Idle State*, the mobile station shall perform the registration
 24 procedures specified in 2.6.5.5.2.1.

25 2.6.2.1.4 Idle Handoff

26 2.6.2.1.4.1 Pilot Search

27 An idle handoff occurs when a mobile station has moved from the coverage area of one base
 28 station into the coverage area of another base station during the *Mobile Station Idle State*. If
 29 the mobile station detects a Pilot Channel signal from another base station that is
 30 sufficiently stronger than that of the current base station, the mobile station determines
 31 that an idle handoff should occur. When multiple idle handoff candidates are available, the
 32 mobile station should select, if any, a candidate which supports Primary Broadcast Control
 33 Channel.

34 Pilot Channels are identified by their offsets relative to the zero offset pilot PN sequence (see
 35 3.1.3.2.1). Pilot offsets are grouped into sets describing their status with regard to pilot
 36 searching.

37 The following sets of pilot offsets are defined for a mobile station in the *Mobile Station Idle*
 38 *State*. Each pilot offset is a member of only one set.

- Active Set: The pilot offset of the Forward CDMA Channel whose Paging Channel or Forward Common Control Channel is being monitored.
- Neighbor Set: The offsets of the Pilot Channels that are likely candidates for idle handoff. The members of the Neighbor Set are specified in the *Neighbor List Message*, *Extended Neighbor List Message*, and the *General Neighbor List Message* on the Paging Channel, and the *Universal Neighbor List Message* on the Primary Broadcast Control Channel.
- Remaining Set: The set of all possible pilot offsets in the current system (integer multiples of PILOT_INC_S) on the current CDMA Frequency Assignment, excluding the pilots in the Neighbor Set and the Active Set.
- Private Neighbor Set: The offsets of the Pilot Channels for the private systems that are likely candidates for idle handoff. The members of the Private Neighbor Set are specified in the *Private Neighbor List Message*.

The mobile station shall support a Neighbor Set size of at least N_{8m} pilots (see Annex D).

In the *Mobile Station Idle State*, the mobile station shall continuously search for the strongest Pilot Channel signal on the corresponding CDMA Frequency Assignment whenever it monitors the Paging Channel or the Forward Common Control Channel.

The mobile station may search other frequencies and band classes. For example, if a pilot in the Neighbor Set or in the Private Neighbor Set is on a different Frequency Assignment than that of the mobile station, this frequency should be included in the search criteria. Search performance criteria are defined in [11].

This search should be governed by the following:

- Active Set: The search window size for the pilot in the Active Set shall be the number of PN chips specified in Table 2.6.6.2.1-1 corresponding to SRCH_WIN_A_S. The mobile station should center the search window for the pilot of the Active Set around the earliest arriving usable multipath component of the pilot. If the mobile station receives a value greater than or equal to 13 for SRCH_WIN_A_r, it may store and use the value 13 in SRCH_WIN_A_S.
- Neighbor Set: The search window size for each pilot in the Neighbor Set shall be the number of PN chips specified in Table 2.6.6.2.1-1 corresponding to SRCH_WIN_NGHBR_S field of the NGHBR_REC for the pilot. The mobile station should center the search window for each pilot in the Neighbor Set around the pilot's PN sequence offset plus the corresponding SRCH_OFFSET_NGHBR_S (see Table 2.6.6.2.1-2) using timing defined by the mobile station's time reference (see 2.1.5 of [2]). The mobile station should use the SEARCH_PRIORITY field of the NGHBR_REC for the corresponding pilot to schedule its neighbor search. If ADD_PILOT_REC_INCL field of the NGHBR_REC for the corresponding pilot is equal to '1', the mobile station shall use the information included in the NGHBR_PILOT_REC field for searching the neighbor.

If the mobile station supports hopping pilot beacons and the TIMING_INCL field of the NGHBR_REC for the corresponding pilot is equal to '1', then the mobile station shall use the information included in the NGHBR_TX_OFFSET, NGHBR_TX_DURATION, and NGHBR_TX_PERIOD fields of the NGHBR_REC for the corresponding pilot to schedule the time for searching the neighbor.

- Remaining Set: The search window size for each pilot in the Remaining Set shall be the number of PN chips specified in Table 2.6.6.2.1-1 corresponding to SRCH_WIN_RS. The mobile station should center the search window for each pilot in the Remaining Set around the pilot's PN sequence offset using timing defined by the mobile station's time reference (see 2.1.5 of [2]). The mobile station should only search for Remaining Set pilots whose pilot PN sequence offset indices are equal to integer multiples of PILOT_INC_S.
- Private Neighbor Set: The search window size for each pilot in the Private Neighbor Set shall be the number of PN chips specified in Table 2.6.6.2.1-1 corresponding to SRCH_WIN_PRI_NGHBRs field of the PRI_NGHBR_REC for the pilot. The mobile station should center the search window for each pilot in the Private Neighbor Set around the pilot's PN sequence offset using timing defined by the mobile station's time reference (see 2.1.5 of [2]).

If the mobile station determines that one of the Neighbor Set, Private Neighbor Set or Remaining Set Pilot Channel signals is sufficiently stronger (see [11]) than the Pilot Channel of the Active Set, the mobile station should perform an idle handoff as specified in 2.6.2.1.4.2.

A mobile station operating in slotted mode, which is successfully demodulating the Paging Channel or the Forward Common Control Channel, should not perform an idle handoff while it is required to monitor its assigned slot (see 2.6.2.1.1.3.1).

2.6.2.1.4.2 Idle Handoff Procedures

While performing an idle handoff, the mobile station should not begin operating in non-slotted mode after the idle handoff if all of the following conditions hold:

- The mobile station supports the Quick Paging Channel;
- The mobile station has knowledge that the new base station supports configuration change indicators;
- The mobile station determines that the Quick Paging Channel configuration change indicator for the new Quick Paging Channel is set to "OFF" (see 2.6.2.1.2.1); and
- No more than T31m seconds have elapsed since the mobile station last received a valid message on the new Paging Channel or Forward Common Control Channel/Primary Broadcast Control Channel.

Otherwise, the mobile station shall operate in non-slotted mode until the mobile station has received at least one valid configuration message or mobile station-addressed page on the new Paging Channel or Forward Common Control Channel/Primary Broadcast Control Channel. Following the reception of this message the mobile station may resume slotted mode operation in accordance with 2.6.2.1.1.3. After performing an idle handoff, the

1 mobile station shall discard all unprocessed messages received on the old Paging Channel
 2 or Forward Common Control Channel/Primary Broadcast Control Channel.

3 If the new base station is listed in NGHBR_REC_LIST for the old base station (see 2.6.2.2.3,
 4 2.6.2.2.7, and 2.6.2.1.4.1), the mobile station shall use the corresponding 3-bit
 5 NGHBR_CONFIG field to determine the actions required to transition to the new base
 6 station. If the new base station is not listed in NGHBR_REC_LIST for the old base station,
 7 the mobile station shall perform the handoff operation using the same procedure as for a
 8 pilot in NGHBR_REC_LIST with the NGHBR_CONFIG field set to '011'.

9 If the mobile station is currently monitoring the Paging Channel and selected a neighbor
 10 base station for idle handoff which supports Primary Broadcast Control Channel, the
 11 mobile station shall perform the following:

- 12 – The mobile station shall enter the *System Determination Substate* of the *Mobile Station*
 13 *Initialization State* with a new system indication, upon performing idle handoff to this
 14 neighbor base station.
- 15 – The mobile station shall not perform any of the remaining procedures in this section.

16 If the NGHBR_CONFIG field is '000', the mobile station shall perform the following:

- 17 • The mobile station shall set ACC_MSG_SEQ_S and CURR_ACC_MSG_SEQ to NULL
 18 (see 2.6.2.2) and shall set PILOT_PN_S to the pilot offset index of the base station
 19 transmitting the new Paging Channel or Forward Common Control
 20 Channel/Primary Broadcast Control Channel.
- 21 • If the mobile station has not stored configuration parameters for the new Paging
 22 Channel or Forward Common Control Channel and Primary Broadcast Control
 23 Channel, or if the stored information is not current, the mobile station shall perform
 24 the following:
 - 25 – If the mobile station has monitored the Paging Channel before the idle handoff,
 26 the mobile station shall set CONFIG_MSG_SEQ_S, SYS_PAR_MSG_SEQ_S,
 27 NGHBR_LST_MSG_SEQ_S, EXT_NGHBR_LST_MSG_SEQ_S,
 28 GEN_NGHBR_LST_MSG_SEQ_S, CHAN_LST_MSG_SEQ_S,
 29 EXT_SYS_PAR_MSG_SEQ_S, GLOB_SERV_REDIR_MSG_SEQ_S,
 30 EXT_GLOB_SERV_REDIR_MSG_SEQ_S, EXT_CHAN_LST_MSG_SEQ_S,
 31 USER_ZONE_ID_MSG_SEQ_S, and PRI_NGHBR_LST_MSG_SEQ_S to NULL.
 - 32 – If the mobile station has monitored the Forward Common Control
 33 Channel/Primary Broadcast Control Channel before the idle handoff, the mobile
 34 station shall set CONFIG_MSG_SEQ_S, A41_SYS_PAR_MSG_SEQ_S,
 35 UNI_NGHBR_LST_MSG_SEQ_S, MC_RR_PAR_MSG_SEQ_S,
 36 EXT_GLOB_SERV_REDIR_MSG_SEQ_S, EXT_CHAN_LST_MSG_SEQ_S,
 37 USER_ZONE_ID_MSG_SEQ_S, and PRI_NGHBR_LST_MSG_SEQ_S to NULL.

- 1 • If the stored information for the new Paging Channel or the Forward Common
2 Control Channel and Primary Broadcast Control Channel is current, the mobile
3 station shall set CONFIG_MSG_SEQ_S to the stored information for the new Paging
4 Channel or Forward Common Control Channel and Primary Broadcast Control
5 Channel, and the mobile station shall set NGHBR_REC_LIST to the stored
6 information for the new Paging Channel or the new Forward Common Control
7 Channel and Primary Broadcast Control Channel.
- 8 • If the associated NGHBR_BAND_S or NGHBR_FREQ_S of the new base station in
9 NGHBR_REC_LIST of the old base station is not equal to CDMABAND_S and
10 CDMACH_S respectively, the mobile station shall set CDMABAND_S to NGHBR_BAND_S,
11 CDMACH_S to NGHBR_FREQ_S, and tune to the new CDMA Channel. The mobile
12 station shall begin monitoring the Paging Channel or the Forward Common Control
13 Channel/Primary Broadcast Control Channel of the new base station, using the
14 same rate, code rate, and code channel, as applicable.
- 15 • If PACA_S is equal to enabled, the mobile station shall enter the *Update Overhead*
16 *Information Substate* of the *System Access State* (see 2.6.3) with an origination
17 indication within T33m seconds to re-originate the PACA call using the new base
18 station.

19 If the NGHBR_CONFIG field is '001', the mobile station shall perform the following:

- 20 • The mobile station shall set ACC_MSG_SEQ_S and CURR_ACC_MSG_SEQ to NULL
21 and shall set PILOT_PN_S to the pilot offset index of the base station transmitting the
22 new Paging Channel.
- 23 • If the stored information for [Primary Paging Channel or](#) any of the Paging Channels
24 on the associated NGHBR_FREQ_S of the new base station in NGHBR_REC_LIST of
25 the old base station is current, the mobile station shall perform the following:
26 - The mobile station shall use the hash algorithm specified in 2.6.7.1 to select a
27 new Paging Channel number in the range 1 to PAGE_CHAN_S, where
28 PAGE_CHAN_S is the value stored for the Paging Channel whose stored
29 information is current. The mobile station shall store the new Paging Channel
30 number as PAGECH_S. The mobile station shall perform the following:
31 + If the mobile station has not stored configuration parameters for the new
32 Paging Channel, or if the stored parameters are not current (see 2.6.2.2), the
33 mobile station shall set CONFIG_MSG_SEQ_S, SYS_PAR_MSG_SEQ_S,
34 NGHBR_LST_MSG_SEQ_S, EXT_NGHBR_LST_MSG_SEQ_S,
35 GEN_NGHBR_LST_MSG_SEQ_S, CHAN_LST_MSG_SEQ_S,
36 EXT_SYS_PAR_MSG_SEQ_S, USER_ZONE_ID_MSG_SEQ_S,
37 PRI_NGHBR_LST_MSG_SEQ_S, and EXT_GLOB_SERV_REDIR_MSG_SEQ_S,
38 EXT_CHAN_LST_MSG_SEQ_S, and GLOB_SERV_REDIR_MSG_SEQ_S to NULL.

- 1 + If the stored information for the new Paging Channel is current, the mobile
 2 station shall set CONFIG_MSG_SEQ_S to the stored information for the new
 3 Paging Channel and set NGHBR_REC_LIST to the stored information for the
 4 new Paging Channel.
- 5 - If the mobile station has monitored the Forward Common Control
 6 Channel/Primary Broadcast Control Channel before the idle handoff, the mobile
 7 station shall set Paging Channel data rate, PRAT_S = '00'.
- 8 - If the associated NGHBR_BAND_S or NGHBR_FREQ_S of the new base station in
 9 NGHBR_REC_LIST of the old base station is not equal to CDMABAND_S and
 10 CDMACH_S respectively, the mobile station shall set CDMABAND_S to
 11 NGHBR_BAND_S, CDMACH_S to NGHBR_FREQ_S, and tune to the new CDMA
 12 Channel. The mobile station shall begin monitoring the new Paging Channel of
 13 the new base station.
- 14 • If none of the Paging Channel stored information on the associated NGHBR_FREQ_S
 15 of the new base station in NGHBR_REC_LIST of the old base station are current, the
 16 mobile station shall perform the following:
- 17 - The mobile station shall set CONFIG_MSG_SEQ_S, SYS_PAR_MSG_SEQ_S,
 18 NGHBR_LST_MSG_SEQ_S, EXT_NGHBR_LST_MSG_SEQ_S,
 19 GEN_NGHBR_LST_MSG_SEQ_S, CHAN_LST_MSG_SEQ_S,
 20 EXT_SYS_PAR_MSG_SEQ_S, GLOB_SERV_REDIR_MSG_SEQ_S,
 21 EXT_GLOB_SERV_REDIR_MSG_SEQ_S, EXT_CHAN_LST_MSG_SEQ_S,
 22 USER_ZONE_ID_MSG_SEQ_S, and PRI_NGHBR_LST_MSG_SEQ_S to NULL.
- 23 - If the mobile station has monitored the Forward Common Control
 24 Channel/Primary Broadcast Control Channel before the idle handoff, the mobile
 25 station shall set Paging Channel data rate, PRAT_S = '00'.
- 26 - The mobile station shall set PAGE_CHAN_S to '1' and PAGECH_S to the Primary
 27 Paging Channel. If the associated NGHBR_BAND_S or NGHBR_FREQ_S of the new
 28 base station in NGHBR_REC_LIST of the old base station is not equal to
 29 CDMABAND_S and CDMACH_S respectively, the mobile station shall set
 30 CDMABAND_S to NGHBR_BAND_S, CDMACH_S to NGHBR_FREQ_S, and tune to the
 31 new CDMA Channel. The mobile station shall begin monitoring the Primary
 32 Paging Channel of the new base station.
- 33 • If PACA_S is equal to enabled, the mobile station shall enter the *Update Overhead*
 34 *Information Substate* of the *System Access State* (see 2.6.3) with an origination
 35 indication within T33m seconds to re-originate the PACA call using the new base
 36 station.
- 37 If the NGHBR_CONFIG field is '010', the mobile station shall perform the following:

- 1 • The mobile station shall set ACC_MSG_SEQ_S and CURR_ACC_MSG_SEQ to NULL
2 and shall set PILOT_PNs to the pilot offset index of the base station transmitting the
3 new Paging Channel or Forward Common Control Channel/Primary Broadcast
4 Control Channel.
- 5 • If the mobile station has monitored the Paging Channel before the idle handoff, the
6 mobile station shall perform the following:
 - 7 - If the stored information for Primary Paging Channel or any of the Paging
8 Channels on the target frequency or any of the frequencies of the new base
9 station is current, the mobile station shall perform the following:
 - 10 + The mobile station shall use the hash algorithm specified in 2.6.7.1 and the
11 stored value of the number of CDMA channels to determine the new CDMA
12 Channel and shall set FREQ_NEW to this new CDMA Channel. The mobile
13 station shall perform the following:
 - 14 o If the stored information for any of the Paging Channels on the CDMA
15 channel specified by FREQ_NEW is current, the mobile station shall
16 perform the following:
 - 17 ◊ The mobile station shall use the hash algorithm specified in 2.6.7.1 to
18 select a new Paging Channel number in the range 1 to PAGE_CHAN_S,
19 where PAGE_CHAN_S is the value stored for the Paging Channel whose
20 stored information is current. The mobile station shall store the new
21 Paging Channel number as PAGECH_S. The mobile station shall
22 perform the following:
 - 23 - If the mobile station has not stored configuration parameters for
24 the new Paging Channel, or if the stored parameters are not
25 current (see 2.6.2.2), the mobile station shall set CONFIG-
26 _MSG_SEQ_S, SYS_PAR_MSG_SEQ_S, NGHBR_LST_MSG_SEQ_S,
27 EXT_NGHBR_LST_MSG_SEQ_S, GEN_NGHBR_LST_MSG_SEQ_S,
28 CHAN_LST_MSG_SEQ_S, EXT_SYS_PAR_MSG_SEQ_S,
29 USER_ZONE_ID_MSG_SEQ_S, PRI_NGHBR_LST_MSG_SEQ_S, and
30 EXT_GLOB_SERV_REDIR_MSG_SEQ_S,
31 EXT_CHAN_LST_MSG_SEQ_S, and
32 GLOB_SERV_REDIR_MSG_SEQ_S to NULL.
 - 33 - If the stored information for the new Paging Channel is current,
34 the mobile station shall set CONFIG_MSG_SEQ_S to the stored
35 information for the new Paging Channel and set
36 NGHBR_REC_LIST to the stored information for the new Paging
37 Channel.

- 1 ◊ If the band class corresponding to FREQ_NEW is not equal to
 2 CDMABAND_S of the old base station or FREQ_NEW is not equal to
 3 CDMACH_S of the old base station, the mobile station shall set
 4 CDMABAND_S to band class corresponding to FREQ_NEW and shall
 5 set CDMACH_S to FREQ_NEW, and tune to the new CDMA Channel.
 6 The mobile station shall begin monitoring the new Paging Channel of
 7 the new base station.
- 8 o If none of the Paging Channel stored information on the CDMA channel
 9 specified by FREQ_NEW are current, the mobile station shall perform the
 10 following:
- 11 ◊ The mobile station shall set CONFIG_MSG_SEQ_S, SYS_PAR-
 12 _MSG_SEQ_S, NGHBR_LST_MSG_SEQ_S,
 13 EXT_NGHBR_LST_MSG_SEQ_S, GEN_NGHBR_LST_MSG_SEQ_S,
 14 CHAN_LST_MSG_SEQ_S, EXT_SYS_PAR_MSG_SEQ_S,
 15 GLOB_SERV_REDIR_MSG_SEQ_S,
 16 EXT_GLOB_SERV_REDIR_MSG_SEQ_S, EXT_CHAN_LST_MSG_SEQ_S,
 17 USER_ZONE_ID_MSG_SEQ_S, and PRI_NGHBR_LST_MSG_SEQ_S to
 18 NULL.
- 19 ◊ The mobile station shall set PAGE_CHAN_S to '1' and PAGECH_S to the
 20 Primary Paging Channel. If the band class corresponding to
 21 FREQ_NEW is not equal to CDMABAND_S of the old base station or
 22 FREQ_NEW is not equal to CDMACH_S of the old base station, the
 23 mobile station shall set CDMABAND_S to band class corresponding to
 24 FREQ_NEW and shall set CDMACH_S to FREQ_NEW, and tune to the
 25 new CDMA Channel. The mobile station shall begin monitoring the
 26 Primary Paging Channel of the new base station.
- 27 - If none of the Paging Channel stored information on any of the frequencies of the
 28 new base station are current, the mobile station shall perform the following:
- 29 + The mobile station shall set CONFIG_MSG_SEQ_S, SYS_PAR_MSG_SEQ_S,
 30 NGHBR_LST_MSG_SEQ_S, EXT_NGHBR_LST_MSG_SEQ_S,
 31 GEN_NGHBR_LST_MSG_SEQ_S, CHAN_LST_MSG_SEQ_S,
 32 EXT_SYS_PAR_MSG_SEQ_S, GLOB_SERV_REDIR_MSG_SEQ_S,
 33 EXT_GLOB_SERV_REDIR_MSG_SEQ_S, EXT_CHAN_LST_MSG_SEQ_S,
 34 USER_ZONE_ID_MSG_SEQ_S, and PRI_NGHBR_LST_MSG_SEQ_S to NULL.
- 35 + The mobile station shall set PAGE_CHAN_S to '1' and PAGECH_S to the Primary
 36 Paging Channel. If the associated NGHBR_BAND_S or NGHBR_FREQ_S of the
 37 new base station in NGHBR_REC_LIST of the old base station is not equal to
 38 CDMABAND_S and CDMACH_S of the old base station respectively, the mobile
 39 station shall set CDMABAND_S to NGHBR_BAND_S, and CDMACH_S to
 40 NGHBR_FREQ_S; otherwise, the mobile station shall set CDMACH_S as follows:

- 1 o If the *Extended CDMA Channel List Message* is being sent on the old base
2 station, set $CDMACH_S$ to the first CDMA Channel given in the *Extended*
3 *CDMA Channel List Message* for the old base station.
- 4 o Otherwise, set $CDMACH_S$ to the first CDMA Channel given in the *CDMA*
5 *Channel List Message* for the old base station.

6 Then the mobile station shall tune to the new CDMA channel and begin
7 monitoring the Primary Paging Channel of the new base station.

- 8 • If the mobile station has monitored the Forward Common Control Channel/Primary
9 Broadcast Control Channel before the idle handoff, the mobile station shall perform
10 the following:
 - 11 – If the stored information for any of the Forward Common Control Channels and
12 Primary Broadcast Control Channel on any of the frequencies of the new base
13 station is current, the mobile station shall perform the following:
 - 14 + The mobile station shall use the hash algorithm specified in 2.6.7.1 and the
15 stored value of the number of CDMA channels to determine the new CDMA
16 Channel and shall set $FREQ_NEW$ to this new CDMA Channel. The mobile
17 station shall perform the following
 - 18 o If the stored information for any of the Forward Common Control
19 Channels and Primary Broadcast Control Channel on the CDMA channel
20 specified by $FREQ_NEW$ is current, the mobile station shall perform the
21 following: If the *Extended CDMA Channel List Message* is being sent on
22 the old base station, set $CDMACH_S$ to the first CDMA Channel given in
23 the *Extended CDMA Channel List Message* for the old base station.
 - 24 ◊ The mobile station shall use the hash algorithm specified in 2.6.7.1 to
25 select a new Forward Common Control Channel number in the range
26 1 to NUM_FCCCH_S , where NUM_FCCCH_S is the stored value. The
27 mobile station shall store the new Forward Common Control Channel
28 number as $FCCCH_ID_S$.
 - 29 ◊ If the stored information for this new Forward Common Control
30 Channel and Primary Broadcast Control Channel is current, the
31 mobile station shall perform the following:
 - 32 – The mobile station shall set $CONFIG_MSG_SEQ_S$ to the stored
33 information for this new Forward Common Control Channel and
34 Primary Broadcast Control Channel and the mobile station shall
35 set $NGHBR_REC_LIST$ to the stored information for this new
36 Forward Common Control Channel and Primary Broadcast
37 Control Channel.

- If the band class corresponding to FREQ_NEW is not equal to CDMABAND_S of the old base station or FREQ_NEW is not equal to CDMACH_S of the old base station, the mobile station shall set CDMABAND_S to band class corresponding to FREQ_NEW and shall set CDMACH_S to FREQ_NEW, and tune to the new CDMA Channel. The mobile station shall begin monitoring the new Forward Common Control Channel/Primary Broadcast Control Channel of the new base station.
- ◊ If the stored information for this new Forward Common Control Channel and Primary Broadcast Control Channel is not current, the mobile station shall perform the following:
 - The mobile station shall set CONFIG_MSG_SEQ_S, A41_SYS_PAR_MSG_SEQ_S, UNI_NGHBR_LST_MSG_SEQ_S, MC_RR_PAR_MSG_SEQ_S, EXT_GLOB_SERV_REDIR_MSG_SEQ_S, EXT_CHAN_LST_MSG_SEQ_S, USER_ZONE_ID_MSG_SEQ_S, and PRI_NGHBR_LST_MSG_SEQ_S to NULL.
 - If the band class corresponding to FREQ_NEW is not equal to CDMABAND_S of the old base station or FREQ_NEW is not equal to CDMACH_S of the old base station, the mobile station shall set CDMABAND_S to band class corresponding to FREQ_NEW and shall set CDMACH_S to FREQ_NEW, and tune to the new CDMA Channel. The mobile station shall begin monitoring the Primary Broadcast Control Channel of the new base station.
- o If none of the Forward Common Control Channel and Primary Broadcast Control Channel stored information on the CDMA channel specified by FREQ_NEW are current, the mobile station shall perform the following:
 - ◊ The mobile station shall set CONFIG_MSG_SEQ_S, A41_SYS_PAR_MSG_SEQ_S, UNI_NGHBR_LST_MSG_SEQ_S, MC_RR_PAR_MSG_SEQ_S, EXT_GLOB_SERV_REDIR_MSG_SEQ_S, EXT_CHAN_LST_MSG_SEQ_S, USER_ZONE_ID_MSG_SEQ_S, and PRI_NGHBR_LST_MSG_SEQ_S to NULL.
 - ◊ If the associated NGBHR_BAND_S of the new base station in NGBHR_REC_LIST of the old base station is not equal to CDMABAND_S or the associated NGBHR_FREQ_S of the new base station in NGBHR_REC_LIST of the old base station is not equal to CDMACH_S of the old base station, the mobile station shall set CDMABAND_S to NGBHR_BAND_S, CDMACH_S to NGBHR_FREQ_S, and tune to the new CDMA Channel. Otherwise, the mobile station shall set CDMACH_S to the first CDMA Channel given in the *Extended CDMA Channel List Message* for the old base station and tune to the new CDMA channel.

- 1 ◊ Then the mobile station shall begin monitoring the Primary Broadcast
 2 Control Channel of the new base station, using the same rate, code
 3 rate, and code channel.
- 4 – If none of the Forward Common Control Channel and Primary Broadcast Control
 5 Channel stored information on any of the frequencies of the new base station are
 6 current, the mobile station shall perform the following:
- 7 + The mobile station shall set CONFIG_MSG_SEQ_S, A41_SYS_PAR_MSG_SEQ_S,
 8 UNI_NGHBR_LST_MSG_SEQ_S, MC_RR_PAR_MSG_SEQ_S,
 9 EXT_GLOB_SERV_REDIR_MSG_SEQ_S, EXT_CHAN_LST_MSG_SEQ_S,
 10 USER_ZONE_ID_MSG_SEQ_S, and PRI_NGHBR_LST_MSG_SEQ_S to NULL.
- 11
- 12 + If the associated NGHBR_BAND_S or NGHBR_FREQ_S of the new base station
 13 in NGHBR_REC_LIST of the old base station is not equal to CDMABAND_S
 14 and CDMACH_S of the old base station respectively, the mobile station shall
 15 set CDMABAND_S to NGHBR_BAND_S, CDMACH_S to NGHBR_FREQ_S, and tune
 16 to the new CDMA Channel. Otherwise, the mobile station shall set
 17 CDMACH_S to the first CDMA Channel given in the *Extended CDMA Channel*
 18 *List Message* for the old base station and tune to the new CDMA channel.
- 19 + Then the mobile station shall begin monitoring the Primary Broadcast
 20 Control Channel of the new base station, using the same rate, code rate, and
 21 code channel.
- 22 • If PACA_S is equal to enabled, the mobile station shall enter the *Update Overhead*
 23 *Information Substate* of the *System Access State* (see 2.6.3) with an origination
 24 indication within T33m seconds to re-originate the PACA call using the new base
 25 station.
- 26 If the NGHBR_CONFIG field is ‘011’, the mobile station shall perform the following:
- 27 • Enter the *System Determination Substate* of the *Mobile Station Initialization State* with
 28 a new system indication (see 2.6.1.1).
- 29 If the NGHBR_CONFIG field is ‘100’, the mobile station shall perform the following:
- 30 • The mobile station shall set ACC_MSG_SEQ_S and CURR_ACC_MSG_SEQ to NULL
 31 (see 2.6.2.2) and shall set PILOT_PN_S to the pilot offset index of the base station
 32 transmitting the new Forward Common Control Channel/Primary Broadcast Control
 33 Channel.
- 34 • If the stored information for any of the Forward Common Control Channels and
 35 Primary Broadcast Control Channel on the associated NGHBR_FREQ_S of the new
 36 base station in NGHBR_REC_LIST of the old base station is current, the mobile
 37 station shall perform the following:

- The mobile station shall use the hash algorithm specified in 2.6.7.1 to select a new Forward Common Control Channel number in the range 1 to NUM_FCCCH_S, where NUM_FCCCH_S is the stored value. The mobile station shall store the new Forward Common Control Channel number as FCCCH_ID_S.
- If the mobile station has not stored configuration parameters for this new Forward Common Control Channel and Primary Broadcast Control Channel, or if the stored information is not current, the mobile station shall perform the following:
 - + The mobile station shall set CONFIG_MSG_SEQ_S, A41_SYS_PAR_MSG_SEQ_S, UNI_NGHBR_LST_MSG_SEQ_S, MC_RR_PAR_MSG_SEQ_S, EXT_GLOB_SERV_REDIR_MSG_SEQ_S, EXT_CHAN_LST_MSG_SEQ_S, USER_ZONE_ID_MSG_SEQ_S, and PRI_NGHBR_LST_MSG_SEQ_S to NULL.
 - + If the associated NGHBR_BAND_S or NGHBR_FREQ_S of the new base station in NGHBR_REC_LIST of the old base station is not equal to CDMABAND_S and CDMACH_S respectively, the mobile station shall set CDMABAND_S to NGHBR_BAND_S, CDMACH_S to NGHBR_FREQ_S, and tune to the new CDMA Channel.
 - + Then the mobile station shall begin monitoring the Primary Broadcast Control Channel of the new base station, using the same rate, code rate, and code channel.
- If the stored information for this new Forward Common Control Channel and Primary Broadcast Control Channel is current, the mobile station shall perform the following:
 - + The mobile station shall set CONFIG_MSG_SEQ_S to the stored information for this new Forward Common Control Channel and Primary Broadcast Control Channel and the mobile station shall set NGHBR_REC_LIST to the stored information for this new Forward Common Control Channel and Primary Broadcast Control Channel.
 - + If the associated NGHBR_BAND_S or NGHBR_FREQ_S of the new base station in NGHBR_REC_LIST of the old base station is not equal to CDMABAND_S and CDMACH_S respectively, the mobile station shall set CDMABAND_S to NGHBR_BAND_S, CDMACH_S to NGHBR_FREQ_S, and tune to the new CDMA Channel. The mobile station shall begin monitoring the new Forward Common Control Channel/Primary Broadcast Control Channel of the new base station.
- If none of the Forward Common Control Channel and Primary Broadcast Control Channel stored information on the associated NGHBR_FREQ_S of the new base station in NGHBR_REC_LIST of the old base station are current, the mobile station shall perform the following:

- 1 – The mobile station shall set CONFIG_MSG_SEQ_S, A41_SYS_PAR_MSG_SEQ_S,
2 UNI_NGHBR_LST_MSG_SEQ_S, MC_RR_PAR_MSG_SEQ_S,
3 EXT_GLOB_SERV_REDIR_MSG_SEQ_S, EXT_CHAN_LST_MSG_SEQ_S,
4 USER_ZONE_ID_MSG_SEQ_S, and PRI_NGHBR_LST_MSG_SEQ_S to NULL.
- 5 – If the associated NGHBR_BAND_S or NGHBR_FREQ_S of the new base station in
6 NGHBR_REC_LIST of the old base station is not equal to CDMABAND_S and
7 CDMACH_S respectively, the mobile station shall set CDMABAND_S to
8 NGHBR_BAND_S, CDMACH_S to NGHBR_FREQ_S, and tune to the new CDMA
9 Channel.
- 10 – The mobile station shall begin monitoring the Primary Broadcast Control
11 Channel of the new base station, using the same rate, code rate, and code
12 channel.
- 13 • If PACA_S is equal to enabled, the mobile station shall enter the *Update Overhead*
14 *Information Substate* of the *System Access State* (see 2.6.3) with an origination
15 indication within T33m seconds to re-originate the PACA call using the new base
16 station.

17 2.6.2.1.5 Primary Broadcast Control Channel Monitoring

18 2.6.2.1.5.1 General Overview

19 The Broadcast Control Channel is divided into 40, 80, or 160 ms slots called the Broadcast
20 Control Channel slots (see 3.1.3.5 in [2]). The Primary Broadcast Control Channel will be
21 used for control messages. Support for the Primary Broadcast Control Channel is
22 mandatory for mobile stations. The Primary Broadcast Control Channel will operate with
23 the Forward Common Control Channels and the Quick Paging Channels, or only with the
24 Forward Common Control Channels.

25 After a mobile station acquires and synchronizes with a new base station that supports a
26 Primary Broadcast Control Channel, the mobile station monitors the Primary Broadcast
27 Control Channel to receive overhead information. Once the mobile station has received the
28 updated overhead information from the Primary Broadcast Control Channel, the mobile
29 station may begin to monitor a Forward Common Control Channel or a Quick Paging
30 Channel, if it is supported.

31 2.6.2.1.5.2 Requirements

32 If the base station supports the Primary Broadcast Control Channel, the mobile station
33 shall monitor the Primary Broadcast Control Channel for overhead messages. If the mobile
34 station determines that the CONFIG_MSG_SEQ has changed, the mobile station shall
35 monitor the Primary Broadcast Control Channel to receive updated overhead messages.

36 2.6.2.1.6 System Reselection Procedures

37 If the mobile station supports more than one operating mode or the Remaining

Set/Neighbor Set contains pilots on frequencies different from the current frequency, the mobile station shall enter the *System Determination Substate* of the *Mobile Station Initialization State* with a system reselection indication (see 2.6.1.1) if all of the following are true:

- RESELECT_INCLUDED_S is equal to '1';

- The following inequality is satisfied:

$$\underline{-}20 \times \log_{10} (E_c/I_o) > EC_IO_THRESH_S$$

where E_c/I_o is the measured E_c/I_o of the active pilot; and

- The following inequality is satisfied:

$$pilot_power < EC_THRESH_S - 115$$

where $pilot_power$ (dBm/1.23 MHz) = $10 \times \log_{10}$ (PS) (dB) + mean input power

(dBm/1.23 MHz) and PS is the strength of the active pilot, as specified in 2.6.6.2.2.

2.6.2.1.7 Slotted Timer Expiration

Upon expiration of the slotted T_{MS} Slotted timer, the mobile station shall disable the timer and set SLOTTED_S to YES.

2.6.2.2 Response to Overhead Information Operation

The overhead messages on the Primary Broadcast Control Channel are:

- *ANSI-41 System Parameters Message*
- *MC-RR Parameters Message*
- *Enhanced Access Parameters Message*
- *Universal Neighbor List Message*
- *User Zone Identification Message*
- *Private Neighbor List Message*
- *Extended Global Service Redirection Message*
- *Extended CDMA Channel List Message*
- *ANSI-41 RAND Message*

The overhead messages on the Paging Channel are:

- *System Parameters Message*
- *Access Parameters Message*
- *Neighbor List Message*
- *CDMA Channel List Message*
- *Extended System Parameters Message*
- *Global Service Redirection Message*

- 1 • *Extended Neighbor List Message*
- 2 • *General Neighbor List Message*
- 3 • *User Zone Identification Message*
- 4 • *Private Neighbor List Message*
- 5 • *Extended Global Service Redirection Message*
- 6 • *Extended CDMA Channel List Message*

7 The *Response to Overhead Information Operation* is performed whenever the mobile station
 8 receives an overhead message. The mobile station updates internally stored information
 9 from the received message's data fields.

10 Configuration parameters and access parameters are received in the configuration
 11 messages and the *Access Parameters Message* or the *Enhanced Access Parameters Message*.

12 The configuration messages on the Primary Broadcast Control Channel are:

- 13 • *ANSI-41 System Parameters Message*
- 14 • *MC-RR Parameters Message*
- 15 • *Universal Neighbor List Message*
- 16 • *User Zone Identification Message*
- 17 • *Private Neighbor List Message*
- 18 • *Extended Global Service Redirection Message*
- 19 • *Extended CDMA Channel List Message*

20 The configuration messages on the Paging Channel are:

- 21 • *System Parameters Message*
- 22 • *Neighbor List Message*
- 23 • *CDMA Channel List Message*
- 24 • *Extended System Parameters Message*
- 25 • *Global Service Redirection Message*
- 26 • *Extended Neighbor List Message*
- 27 • *General Neighbor List Message*
- 28 • *User Zone Identification Message*
- 29 • *Private Neighbor List Message*
- 30 • *Extended Global Service Redirection Message*
- 31 • *Extended CDMA Channel List Message*

32 Associated with the set of configuration messages sent on each Paging Channel or Primary
 33 Broadcast Control Channel is a configuration message sequence number
 34 (CONFIG_MSG_SEQ). When the contents of one or more of the configuration messages

1 change, the configuration message sequence number is incremented. For each of the
 2 configuration messages received, the mobile station stores the configuration message
 3 sequence number contained in the configuration message (A41_SYS_PAR_MSG_SEQ_S,
 4 MC_RR_PAR_MSG_SEQ_S, SYS_PAR_MSG_SEQ_S, NGHBR_LIST_MSG_SEQ_S,
 5 EXT_NGHBR_LST_MSG_SEQ_S, GEN_NGHBR_LST_MSG_SEQ_S,
 6 UNI_NGHBR_LST_MSG_SEQ_S, CHAN_LIST_MSG_SEQ_S, EXT_SYS_PAR_MSG_SEQ_S,
 7 GLOB_SERV_REDIR_MSG_SEQ_S, USER_ZONE_ID_MSG_SEQ_S,
 8 EXT_CHAN_LST_MSG_SEQ_S, EXT_GLOB_SERV_REDIR_MSG_SEQ_S, or
 9 PRI_NGHBR_LST_MSG_SEQ_S). The mobile station also stores the most recently received
 10 configuration message sequence number (CONFIG_MSG_SEQ_S) contained in any message
 11 (see 2.6.2.2.1, 2.6.2.2.3, 2.6.2.2.4, 2.6.2.2.5, 2.6.2.2.6, 2.6.2.2.7, 2.6.2.2.8, 2.6.2.2.9,
 12 2.6.2.2.10, 2.6.2.2.11, 2.6.2.2.12, 2.6.2.2.13, 2.6.2.2.14, 2.6.2.2.17, and 2.6.2.3). The
 13 mobile station examines the stored values of the configuration message sequence numbers
 14 to determine whether the configuration parameters stored by the mobile station are
 15 current.

16 The field EXT_SYS_PARAMETER in the *System Parameters Message*, when set equal to '0',
 17 indicates that the base station is not sending the *Extended System Parameters Message*.
 18 When the mobile station receives the *System Parameters Message* with the
 19 EXT_SYS_PARAMETER field set equal to '0', the mobile station shall set
 20 EXT_SYS_PAR_MSG_SEQ_S to CONFIG_MSG_SEQ_S to indicate that the *Extended System*
 21 *Parameters Message* is current.

22 The field EXT CHAN LST in the *System Parameters Message*, when set equal to '0',
 23 indicates that the base station is not sending the *Extended CDMA Channel List Message*.
 24 When the mobile station receives the *System Parameters Message* with the EXT CHAN LST
25 field set equal to '0', the mobile station shall set EXT CHAN LST MSG SEQ_S to
26 CONFIG MSG SEQ_S to indicate that the *Extended CDMA Channel List Message* is current.

27 The field GEN_NGHBR_LST in the *System Parameters Message*, when set equal to '0',
 28 indicates that the base station is not sending the *General Neighbor List Message*. When the
 29 mobile station receives the *System Parameters Message* with the GEN_NGHBR_LST field set
 30 equal to '0', the mobile station shall set the GEN_NGHBR_LST_MSG_SEQ_S to
 31 CONFIG_MSG_SEQ_S to indicate that the *General Neighbor List Message* is current.

32 The field EXT_NGHBR_LST in the *System Parameters Message*, when set equal to '0',
 33 indicates that the base station is not sending the *Extended Neighbor List Message*. When
 34 the mobile station receives the *System Parameters Message* with the EXT_NGHBR_LST field
 35 set equal to '0', the mobile station shall set EXT_NGHBR_LIST_MSG_SEQ_S to
 36 CONFIG_MSG_SEQ_S to indicate that the *Extended Neighbor List Message* is current.

37 The field GLOBAL_REDIRECT in the *System Parameters Message*, when set equal to '0',
 38 indicates that the base station is not sending the *Global Service Redirection Message*. When
 39 the mobile station receives the *System Parameters Message* with the GLOBAL_REDIRECT
 40 field set equal to '0', the mobile station shall set GLOB_SERV_REDIR_MSG_SEQ_S to
 41 CONFIG_MSG_SEQ_S to indicate that the *Global Service Redirection Message* is current.

42 The field EXT_GLOBAL_REDIRECT in the *System Parameters Message* or *MC-RR Parameters*
 43 *Message*, when set equal to '0', indicates that the base station is not sending the *Extended*

1 *Global Service Redirection Message.* When the mobile station receives the *System*
 2 *Parameters Message* or *MC-RR Parameters Message* with the EXT_GLOBAL_REDIRECT field
 3 set equal to '0', the mobile station shall set EXT_GLOB_SERV_REDIR_MSG_SEQ_S to
 4 CONFIG_MSG_SEQ_S to indicate that the *Extended Global Service Redirection Message* is
 5 current.

6 The field USER_ZONE_ID in the *System Parameters Message* or *MC-RR Parameters*
 7 *Message*, when set equal to '0', indicates that the base station is not sending the *User Zone*
 8 *Identification Message*. When the mobile station receives the *System Parameters Message* or
 9 *MC-RR Parameters Message* with the USER_ZONE_ID field set equal to '0', the mobile
 10 station shall set USER_ZONE_ID_MSG_SEQ_S to CONFIG_MSG_SEQ_S to indicate that the
 11 *User Zone Identification Message* is current.

12 The field PRI_NGHBR_LIST in the *System Parameters Message* or *MC-RR Parameters*
 13 *Message*, when set equal to '0', indicates that the base station is not sending the *Private*
 14 *Neighbor List Message*. When the mobile station receives the *System Parameters Message* or
 15 *MC-RR Parameters Message* with the PRI_NGHBR_LIST field set equal to '0', the mobile
 16 station shall set PRI_NGHBR_LIST_MSG_SEQ_S to CONFIG_MSG_SEQ_S to indicate that the
 17 *Private Neighbor List Message* is current.

18 The configuration message sequence number is also included in the *General Page Message*
 19 and the *Universal Page Message*. This allows the mobile station to determine whether the
 20 stored configuration parameters are current without waiting for a configuration message.

21 *Access Parameters Messages* or *Enhanced Access Parameters Messages* are independently
 22 sequence-numbered by the ACC_MSG_SEQ field. The mobile station stores the most
 23 recently received *Access Parameters Message* or *Enhanced Access Parameters Messages*
 24 sequence number (ACC_MSG_SEQ_S).

25 Paging Channels, Broadcast Control Channels, and Forward Common Control Channels
 26 shall be considered different if they are transmitted by different base stations, if they are
 27 transmitted on different code channels, or if they are transmitted on different CDMA
 28 Channels. Configuration and access parameters from one Paging Channel or Primary
 29 Broadcast Control Channel shall not be used while monitoring a different Paging Channel
 30 or Primary Broadcast Control Channel/Forward Common Control Channel except for
 31 registration and authentication parameters while the mobile station is performing an access
 32 probe handoff or access handoff. The mobile station shall ignore any overhead message
 33 whose PILOT_PN_r field is not equal to the pilot offset index (PILOT_PNs) of the base station
 34 whose Paging Channel or Primary Broadcast Control Channel is being monitored.

35 The mobile station may store the configuration parameters from Paging Channels or
 36 Primary Broadcast Control Channel it has recently monitored. When a mobile station
 37 starts monitoring a Paging Channel or a Primary Broadcast Control Channel/Forward
 38 Common Control Channel that it has recently monitored, the mobile station can determine
 39 whether the stored parameters are current by examining the CONFIG_MSG_SEQ_S in a
 40 configuration message or a page message.

41 The mobile station shall use a special value, NULL, to be stored in place of sequence
 42 numbers for messages that have not been received or are marked as not current. The
 43 special value NULL shall be unequal to any valid message sequence number.

1 The mobile station shall consider the stored configuration parameters to be current only if
 2 all of the following conditions are true:

- 3 • If the mobile station is monitoring the Paging Channel, all stored configuration
 4 message sequence numbers (SYS_PAR_MSG_SEQ_S, NGHBR_LST_MSG_SEQ_S,
 5 EXT_NGHBR_LST_MSG_SEQ_S, CHAN_LST_MSG_SEQ_S, EXT_SYS_PAR_MSG_SEQ_S,
 6 GEN_NGHBR_LST_MSG_SEQ_S, USER_ZONE_ID_MSG_SEQ_S,
 7 PRI_NGHBR_LST_MSG_SEQ_S, EXT_CHAN_LST_MSG_SEQ_S,
 8 EXT_GLOB_SERV_REDIR_MSG_SEQ_S and GLOB_SERV_REDIR_MSG_SEQ_S) are
 9 equal to CONFIG_MSG_SEQ_S; and
- 10 • If the mobile station is monitoring the Forward Common Control Channel/ Primary
 11 Broadcast Control Channel, all stored configuration message sequence numbers
 12 (A41_SYS_PAR_MSG_SEQ_S, MC_RR_PAR_MSG_SEQ_S,
 13 UNI_NGHBR_LST_MSG_SEQ_S, USER_ZONE_ID_MSG_SEQ_S,
 14 PRI_NGHBR_LST_MSG_SEQ_S, EXT_CHAN_LST_MSG_SEQ_S, and
 15 EXT_GLOB_SERV_REDIR_MSG_SEQ_S) are equal to CONFIG_MSG_SEQ_S; and
- 16 • CONFIG_MSG_SEQ_S is not equal to NULL; and
- 17 • No more than T_{31m} seconds (see Annex D) have elapsed since the mobile station last
 18 received a valid message on the Paging Channel or the Primary Broadcast Control
 19 Channel/Forward Common Control Channel for which the parameters were stored.

20 If the configuration parameters are not current, the mobile station shall process the stored
 21 parameters upon receipt of the configuration messages as described in 2.6.2.2.1, 2.6.2.2.3,
 22 2.6.2.2.4, 2.6.2.2.5, 2.6.2.2.6, 2.6.2.2.7, 2.6.2.2.8, 2.6.2.2.9, 2.6.2.2.10, 2.6.2.2.11,
 23 2.6.2.2.12, 2.6.2.2.13, 2.6.2.2.14, and 2.6.2.2.17.

24 2.6.2.2.1 System Parameters Message

25 Whenever a *System Parameters Message* is received on the Paging Channel, the
 26 configuration message sequence number, CONFIG_MSG_SEQ_r, shall be compared to that
 27 stored in SYS_PAR_MSG_SEQ_S. If the comparison results in a match, the mobile station
 28 may ignore the message. If the comparison results in a mismatch, then the mobile station
 29 shall process the remaining fields in the message as described in 2.6.2.2.1.1, 2.6.2.2.1.2,
 30 2.6.2.2.1.3, 2.6.2.2.1.4, 2.6.2.2.1.5, ~~and~~ 2.6.2.2.1.6, 2.6.2.2.1.7, 2.6.2.2.1.8, and
 31 2.6.2.2.1.9.

32 If PAGE_CHAN, REG_PRD, BASE_LAT, BASE_LONG, or PWR_REP_THRESH are not within
 33 the valid ranges specified in 3.7.2.3.2.1, then the mobile station shall ignore the *System*
 34 *Parameters Message* that contains them.

35 If BAND_CLASS is equal to '00001' and if either EXT_SYS_PARAMETERS_r is not equal to '1'
 36 or EXT_NGHBR_LST_r is not equal to '1', or both, the mobile station shall ignore the *System*
 37 *Parameters Message* containing these fields.

38 2.6.2.2.1.1 Stored Parameters

39 The mobile station shall store the following parameters:

- 1 • Configuration message sequence number
(CONFIG_MSG_SEQ_S = CONFIG_MSG_SEQ_r,
2 SYS_PAR_MSG_SEQ_S = CONFIG_MSG_SEQ_r)
- 3
- 4 • Base station identification (BASE_ID_S = BASE_ID_r)
- 5 • Base station class (BASE_CLASS_S = BASE_CLASS_r)
- 6 • Maximum slot cycle index
(MAX_SLOT_CYCLE_INDEX_S = MAX_SLOT_CYCLE_INDEX_r)
- 7
- 8 • Home registration indicator (HOME_REG_S = HOME_REG_r)
- 9 • SID roamer registration indicator (FOR_SID_REG_S = FOR_SID_REG_r)
- 10 • NID roamer registration indicator (FOR_NID_REG_S = FOR_NID_REG_r)
- 11 • Power-up registration indicator (POWER_UP_REG_S = POWER_UP_REG_r)
- 12 • Power-down registration indicator (POWER_DOWN_REG_S = POWER_DOWN_REG_r)
- 13 • Parameter-change registration indicator (PARAMETER_REG_S = PARAMETER_REG_r)
- 14 • Search window size for the Active Set and Candidate Set
(SRCH_WIN_A_S = SRCH_WIN_A_r)
- 15
- 16 • Search window size for the Neighbor Set (SRCH_WIN_N_S = SRCH_WIN_N_r)
- 17 • Search window size for the Remaining Set (SRCH_WIN_R_S = SRCH_WIN_R_r)
- 18 • Maximum age for retention of Neighbor Set members
(NGHBR_MAX_AGE_S = NGHBR_MAX_AGE_r)
- 19
- 20 • Power control reporting threshold (PWR REP THRESH_S = PWR REP THRESH_r)
- 21 • Power control reporting frame count (PWR REP FRAMES_S = PWR REP FRAMES_r)
- 22 • Threshold report mode indicator
(PWR_THRESH_ENABLE_S = PWR_THRESH_ENABLE_r)
- 23
- 24 • Periodic report mode indicator (PWR_PERIOD_ENABLE_S = PWR_PERIOD_ENABLE_r).
25
- 25 • Power report delay (PWR REP DELAY_S = PWR REP DELAY_r)
- 26 • Pilot detection threshold (T_ADD_S = T_ADD_r)
- 27 • Pilot drop threshold (T_DROP_S = T_DROP_r)
- 28 • Active Set versus Candidate Set comparison threshold (T_COMP_S = T_COMP_r)
- 29 • Drop timer value (T_TDROPO_S = T_TDROPO_r)
- 30 • *Extended System Parameters Message sent*
(EXT_SYS_PARAMETER_S = EXT_SYS_PARAMETER_r)
- 31
- 32 • *Global Service Redirection Message sent*
(GLOBAL_REDIRECT_S = GLOBAL_REDIRECT_r)
- 33
- 34 • *Extended Global Service Redirection Message sent*
(EXT_GLOBAL_REDIRECT_S = EXT_GLOBAL_REDIRECT_r)
- 35

- 1 • *Extended Neighbor List Message* sent
(EXT_NGHBR_LST_S = EXT_NGHBR_LST_r)
- 2 • *General Neighbor List Message* sent
(GEN_NGHBR_LST_S = GEN_NGHBR_LST_r)
- 3 • *User Zone Identification Message* sent
(USER_ZONE_ID_S = USER_ZONE_ID_r)
- 4 • *Private Neighbor List Message* sent
(PRI_NGHBR_LST_S = PRI_NGHBR_LST_r)
- 5 • *Extended CDMA Channel List Message* sent
(EXT_CHAN_LIST_S = EXT_CHAN_LIST_r)
- 6 • *Extended CDMA Channel List Message* sent
(EXT_CHAN_LIST_S = EXT_CHAN_LIST_r)

7 The mobile station shall also store the following parameters if the mobile station is not in
8 the *Origination Attempt Substate* or *Page Response Substate*:

- 9 • System identification (SID_S = SID_r)
- 10 • Network identification (NID_S = NID_r)
- 11 • Registration zone (REG_ZONE_S = REG_ZONE_r)
- 12 • Number of registration zones to be retained (TOTAL_ZONES_S = TOTAL_ZONES_r)
- 13 • Zone timer length (ZONE_TIMER_S = ZONE_TIMER_r)
- 14 • Multiple SID storage indicator (MULT_SIDS_S = MULT_SIDS_r)
- 15 • Multiple NID storage indicator (MULT_NIDS_S = MULT_NIDS_r)
- 16 • Registration period (REG_PRD_S = REG_PRD_r)
- 17 • Base station latitude (BASE_LAT_S = BASE_LAT_r)
- 18 • Base station longitude (BASE_LONG_S = BASE_LONG_r)
- 19 • Registration distance (REG_DIST_S = REG_DIST_r)

20 If EXT_SYS_PARAMETER_S is equal to '0', then the mobile station shall perform the
21 following:

- 22 • Set EXT_SYS_PAR_MSG_SEQ_S to CONFIG_MSG_SEQ_S,
- 23 • Set BCAST_INDEX_S to MAX_SLOT_CYCLE_INDEX_S,
- 24 • Set IMSI_O to IMSI_M by setting IMSI_O_S_S to IMSI_M_S_p (i.e., setting IMSI_O_S1_S
25 to IMSI_M_S1_p and IMSI_O_S2_S to IMSI_M_S2_p), MCC_O_S to MCC_M_p,
26 IMSI_O_11_12_S to IMSI_M_11_12_p, and IMSI_O_ADDR_NUM_S to
27 IMSI_M_ADDR_NUM_p,
- 28 • Set RESELECT_INCLUDED_S to '0',
- 29 • For Band Class 0, if the mobile station determines it is operating in Korea, set
30 P_REV_S to '00000010'; otherwise, set P_REV_S to '00000011'. **For Band Class 2**
31 **and** Band Class 3, set P_REV_S to '00000011'. For Band Class 1 and Band Class 4,
32 set P_REV_S to '00000001', and

- 1 • Set P_REV_IN_USE_s to the lesser value of P_REV_s and MOB_P_REV_p of the current
 2 band class.

3 If EXT_CHAN_LIST_s is equal to '0', then the mobile station shall set
 4 EXT_CHAN_LST_MSG_SEQ_s to CONFIG_MSG_SEQ_s.

5 If GLOBAL_REDIRECT_s is equal to '0', then the mobile station shall set GLOB_SERV-
 6 _REDIR_MSG_SEQ_s to CONFIG_MSG_SEQ_s.

7 If EXT_GLOBAL_REDIRECT_s is equal to '0', then the mobile station shall set
 8 EXT_GLOB_SERV_REDIR_MSG_SEQ_s to CONFIG_MSG_SEQ_s.

9 If EXT_NGHBR_LIST_s is equal to '0', then the mobile station shall set
 10 EXT_NGHBR_LST_MSG_SEQ_s to CONFIG_MSG_SEQ_s.

11 If GEN_NGHBR_LIST_s is equal to '0', then the mobile station shall perform the following:

- 12 • Set GEN_NGHBR_LST_MSG_SEQ_s to CONFIG_MSG_SEQ_s.
- 13 • Set the SRCH_WIN_NGHBR field of NGHBR_REC to SRCH_WIN_N_s for all entries.
- 14 • Set the SRCH_OFFSET_NGHBR field of NGHBR_REC to '000' for all entries.
- 15 • Set the TIMING_INCL field of NGHBR_REC to '0' for all entries.
- 16 • Set NUM_ANALOG_NGHBR_s to '000' and ANALOG_NGHBR_LIST to NULL.
- 17 • If EXT_NGHBR_LIST_s is equal to '0':
 - 18 – Set the SEARCH_PRIORITY field of the NGHBR_REC to '10' (high) for all entries.
 - 19 – Set the NGHBR_BAND field of the NGHBR_REC to CDMABAND_s for all entries.
 - 20 – Set the NGHBR_FREQ field of the NGHBR_REC to CDMACH_s for all entries.

21 If GEN_NGHBR_LIST_s is equal to '1', GEN_NGHBR_LST_MSG_SEQ_s is equal to
 22 CONFIG_MSG_SEQ_s, and SETTING_SEARCH_WIN is equal to '1', the mobile station shall
 23 perform the following:

- 24 • Set the SRCH_WIN_NGHBR field of each NGHBR_REC to SEARCH_WIN_N_s for all
 25 NGHBR_SET_SIZE_s entries.
- 26 • Set SETTING_SEARCH_WIN to '0'.

27 If USER_ZONE_ID_s is equal to '0', then the mobile station shall perform the following:

- 28 • Set USER_ZONE_ID_MSG_SEQ_s to CONFIG_MSG_SEQ_s.
- 29 • Set the UZID field of the UZ_REC to '0000000000000000' for all entries.
- 30 • Set the UZ_REV field of the UZ_REC to '0000' for all entries.
- 31 • Set the TEMP_SUB field of the UZ_REC to '0' for all entries.

32 If USER_ZONE_ID_s is equal to '1' and the mobile station does not support Tiered Services,
 33 then the mobile station shall set USER_ZONE_ID_MSG_SEQ_s to CONFIG_MSG_SEQ_s.

34 If PRI_NGHBR_LIST_s is equal to '0', then the mobile station shall set
 35 PRI_NGHBR_LIST_MSG_SEQ_s to CONFIG_MSG_SEQ_s.

1 If PRI_NGHBR_LST_s is equal to ‘1’ and the mobile station does not support Tiered Services,
 2 then the mobile station shall set PRI_NGHBR_LST_MSG_SEQ_s to CONFIG_MSG_SEQ_s.

3 The mobile station shall ignore any fields at the end of the *System Parameters Message* that
 4 are not defined according to the protocol revision level (MOB_P_REV_p of the current band
 5 class) being used by the mobile station.

6 2.6.2.2.1.2 Paging Channel Assignment Change

7 If the number of Paging Channels specified in the *System Parameters Message*
 8 (PAGE_CHAN_r) is different from PAGE_CHAN_s, the mobile station shall use the hash
 9 algorithm specified in 2.6.7.1 to select a new Paging Channel number in the range 1 to
 10 PAGE_CHAN_r. The mobile station shall store the new Paging Channel number as
 11 PAGECH_s. The mobile station shall then set PAGE_CHAN_s to PAGE_CHAN_r. The mobile
 12 station shall set ACC_MSG_SEQ_s to NULL. If the mobile station has not stored
 13 configuration parameters for the new Paging Channel, or if the stored parameters are not
 14 current (see 2.6.2.2), the mobile station shall set CONFIG_MSG_SEQ_s, SYS_PAR_MSG-
 15 _SEQ_s, NGHBR_LST_MSG_SEQ_s, EXT_NGHBR_LST_MSG_SEQ_s,
 16 GEN_NGHBR_LST_MSG_SEQ_s, CHAN_LST_MSG_SEQ_s, EXT_SYS_PAR_MSG_SEQ_s,
 17 USER_ZONE_ID_MSG_SEQ_s, PRI_NGHBR_LST_MSG_SEQ_s, and
 18 EXT_GLOB_SERV_REDIR_MSG_SEQ_s, EXT_CHAN_LST_MSG_SEQ_s, and
 19 GLOB_SERV_REDIR_MSG_SEQ_s to NULL. The mobile station shall then begin monitoring
 20 the new Paging Channel as specified in 2.6.2.1.1.

21 2.6.2.2.1.3 RESCAN Parameter

22 If the RESCAN_r field in the *System Parameters Message* equals ‘1’, the mobile station shall
 23 enter the *System Determination Substate* of the *Mobile Station Initialization State* with a
 24 rescan indication (see 2.6.1.1).

25 2.6.2.2.1.4 Roaming Status

26 The mobile station shall determine the roaming status for the mobile station (see 2.6.5.3).
 27 The mobile station should indicate to the user whether the mobile station is roaming.

28 2.6.2.2.1.5 Registration

29 The mobile station shall update stored variables and perform other registration procedures
 30 as specified in 2.6.5.5.2.2.

31 2.6.2.2.1.6 Slot Cycle Index

32 The mobile station shall set SLOT_CYCLE_INDEX_s to the smaller of: the preferred slot cycle
 33 index SLOT_CYCLE_INDEX_p and the maximum slot cycle index
 34 MAX_SLOT_CYCLE_INDEX_s. If the mobile station is operating in the slotted mode, it shall
 35 set its slot cycle length as described in 2.6.2.1.1.3.

1 2.6.2.2.1.7 PACA Disable for SID Change

2 If PACA_S is equal to enabled, and SID_S is not equal to PACA_SID_S , the mobile station shall
 3 set PACA_S to disabled and PACA_CANCEL to '0', shall disable the PACA state timer, and
 4 should indicate to the user that the PACA call has been canceled.

5 2.6.2.2.1.8 Retry Delay Disable for Packet Zone ID or SID/NID Change

6 The mobile station shall set $\text{RETRY_DELAY}_S[\text{RETRY_TYPE}]$ to 0 when the mobile station
 7 determines that the Packet Zone Identification or the System Identification/Network
 8 Identification (SID/NID pair) has been changed, where RETRY_TYPE is equal to '001', '010',
 9 or '011'.

10 [2.6.2.2.1.9 Encryption key reset for SID/NID Change](#)

11 [The mobile station shall reset \$\text{ENC_KEY}_S\$ to NULL when the mobile station determines that](#)
 12 [the System Identification/Network Identification \(SID/NID pair\) has been changed.](#)

13 2.6.2.2 Access Parameters Message

14 Whenever an *Access Parameters Message* is received on the Paging Channel, the sequence
 15 number, ACC_MSG_SEQ_r , shall be compared to ACC_MSG_SEQ_S . If the comparison
 16 results in a match, the mobile station may ignore the message. If the comparison results in
 17 a mismatch, then the mobile station shall process the remaining fields in the message as
 18 follows.

19 If PROBE_PN_RAN , MAX_REQ_SEQ , or MAX_RSP_SEQ are not within the valid ranges
 20 specified in 3.7.2.3.2.2, then the mobile station shall ignore the *Access Parameters Message*
 21 that contains them.

22 The mobile station shall store the following parameters:

- 23 • *Access Parameters Message* sequence number ($\text{ACC_MSG_SEQ}_S = \text{ACC_MSG_SEQ}_r$)
- 24 • Number of Access Channels ($\text{ACC_CHAN}_S = \text{ACC_CHAN}_r$)
- 25 • Nominal transmit power offset ($\text{NOM_PWR}_S = \text{NOM_PWR}_r$)
- 26 • Initial power offset for access ($\text{INIT_PWR}_S = \text{INIT_PWR}_r$)
- 27 • Power increment ($\text{PWR_STEP}_S = \text{PWR_STEP}_r$)
- 28 • Number of access probes ($\text{NUM_STEP}_S = \text{NUM_STEP}_r$)
- 29 • Maximum Access Channel message capsule size ($\text{MAX_CAP_SZ}_S = \text{MAX_CAP_SZ}_r$)
- 30 • Access Channel preamble length ($\text{PAM_SZ}_S = \text{PAM_SZ}_r$)
- 31 • Persistence modifier for Access Channel attempts for registrations which are not
 32 responses to the *Registration Request Order* ($\text{REG_PSIST}_S = \text{REG_PSIST}_r$)
- 33 • Persistence modifier for Access Channel attempts for message transmissions
 34 ($\text{MSG_PSIST}_S = \text{MSG_PSIST}_r$)

- If PSIST_EMG_INCL_r is equal to '0', the mobile station shall set the persistence modifier for emergency calls from mobile stations in access overload classes 0 to 9 (PSIST_EMG_s) to '000'; otherwise, the mobile station shall set PSIST_EMG_s equal to PSIST_EMG_r.
- Time randomization for Access Channel probes (PROBE_PN_RAN_s = PROBE_PN_RAN_r)
- Acknowledgment timeout (ACH_ACC_TMO_s = ACC_TMO_r)
- Access Channel probe backoff range (PROBE_BKOFF_s = PROBE_BKOFF_r)
- Access Channel probe sequence backoff range (BKOFF_s = BKOFF_r)
- Maximum number of probe sequences for an Access Channel request (MAX_REQ_SEQ_s = MAX_REQ_SEQ_r)
- Maximum number of probe sequences for an Access Channel response (MAX_RSP_SEQ_s = MAX_RSP_SEQ_r)
- If CDMABAND_s is equal to '0', the mobile station shall set extended nominal transmit power NOM_PWR_EXT_s to '0'; otherwise, the mobile station shall store extended nominal transmit power (NOM_PWR_EXT_s = NOM_PWR_EXT_r).
- IC threshold (IC_THRESH_s = -7)

The mobile station shall also store the following parameters if the mobile station is not in the *Origination Attempt Substate* or *Page Response Substate*:

- Authentication mode (if AUTH_r is equal to '00' or '01', then AUTH_s = AUTH_r; otherwise AUTH_s = '01')
- Random challenge value (RAND_s = RAND_r)

The mobile station shall ignore any fields at the end of the *Access Parameters Message* which are not defined according to the protocol revision level (MOB_P_REV_p of the current band class) being used by the mobile station.

The mobile station shall store the persistence parameter number according to the following rule: If the mobile station's access overload class is in the range 0-9, set PSIST_s equal to PSIST(0-9)_r; otherwise set PSIST_s equal to PSIST(n)_r, where n is equal to the mobile station access overload class.

The mobile station shall store the Access Control based on Call Type (ACCT) information as follows:

- Set ACCT_SO_LIST to NULL.
- Set ACCT_SO_GRP_LIST to NULL.
- If ACCT_INCL_r is equal to '1' and ACCOLC_p is in the range 0 to 9, then the mobile station shall perform the following:
 - Set ACCT_INCL_EMG_s to ACCT_INCL_EMG_r.
 - If ACCT_SO_INCL_r is equal to '1', then for each ACCT_SO_r included in this message:

- + If ACCT AOC_BITMAP INCL_r is equal to '0', or if ACCT AOC_BITMAP INCL_r is equal to '1' and the bit in the associated ACCT AOC_BITMAP1_r corresponding to the mobile station's ACCOLC_p (see Table 3.7.2.3.2.2-1) is equal to '1', then add ACCT SO_r to ACCT SO LIST.
- If ACCT SO_GRP INCL_r is equal to '1', then for each ACCT SO_GRP_r included in this message:
 - + If ACCT AOC_BITMAP INCL_r is equal to '0', or if ACCT AOC_BITMAP INCL_r is equal to '1' and the bit in the associated ACCT AOC_BITMAP2_r corresponding to the mobile station's ACCOLC_p (see Table 3.7.2.3.2.2-1) is equal to '1', then add ACCT SO_GRP_r to ACCT SO_GRP LIST.

11 The mobile station shall set CURR_ACC_MSG_SEQ equal to ACC_MSG_SEQ_s.

12 2.6.2.2.3 Neighbor List Message

13 Whenever a valid *Neighbor List Message* is received on the current Paging Channel
 14 (PAGECH_s), the configuration message sequence number, CONFIG_MSG_SEQ_r, shall be
 15 compared to that stored in NGHBR_LST_MSG_SEQ_s. If the comparison results in a match,
 16 the mobile station shall ignore the message. If the comparison results in a mismatch, then
 17 the mobile station shall process the remaining fields in the message as follows.

18 If the PILOT_INC field is not within the valid range specified in 3.7.2.3.2.3, then the mobile
 19 station shall ignore the *Neighbor List Message* that contains it.

20 The mobile station shall store the following parameters:

- Configuration message sequence number
 (CONFIG_MSG_SEQ_s = CONFIG_MSG_SEQ_r,
 NGHBR_LST_MSG_SEQ_s = CONFIG_MSG_SEQ_r)
- Pilot PN sequence offset increment (PILOT_INC_s = PILOT_INC_r)

25 The mobile station shall set NGHBR_SET_SIZE_s to the number of neighboring base stations
 26 contained in the *Neighbor List Message*.

27 For each of the neighboring base stations contained in the *Neighbor List Message*, the
 28 mobile station shall do the following:

- If the ith occurrence of NGHBR_CONFIG_r is equal to '000', '001', or '010', set the
 NGHBR_CONFIG field of NGHBR_REC[i] to the ith occurrence of NGHBR_CONFIG_r;
 otherwise, set the NGHBR_CONFIG field of NGHBR_REC [i] to '011'.
- Set the NGHBR_PN field of NGHBR_REC [i] to the ith occurrence of NGHBR_PN_r.

33 If GEN_NGHBR_LST_MSG_SEQ_s is not equal to CONFIG_MSG_SEQ_s, the mobile station
 34 shall perform the following:

- Set the SEARCH_PRIORITY field of the NGHBR_REC to '10' (high) for all
 NGHBR_SET_SIZE_s entries.
- Set the NGHBR_BAND field of NGHBR_REC to CDMABAND_s for all
 NGHBR_SET_SIZE_s entries.

- 1 • Set the NGHBR_FREQ field of NGHBR_REC to CDMACH_s for all NGHBR_SET_SIZE_s entries.
- 2 • Set the SRCH_WIN_NGHBR field of NGHBR_REC to SRCH_WIN_N_s for all NGHBR_SET_SIZE_s entries.
- 3 • Set the SRCH_OFFSET_NGHBR field of NGHBR_REC to '000' for all entries.
- 4 • Set NUM_ANALOG_NGHBR_s to '000' and set ANALOG_NGHBR_LIST to NULL.

7 The mobile station shall set the ACCESS_ENTRY_HO field of the NGHBR_REC to '0' for all
8 NGHBR_SET_SIZE_s entries if any of the following conditions are met:

- 9 • EXT_SYS_PARAMETER_s is equal to '0',
- 10 • NGHBR_SET_ENTRY_INFO_s is equal to '0', or
- 11 • EXT_SYS_PAR_MSG_SEQ_s is not equal to CONFIG_MSG_SEQ_s.

12 The mobile station shall set the ACCESS_HO_ALLOWED field of the NGHBR_REC to '0' for
13 all NGHBR_SET_SIZE_s entries if any of the following conditions are met:

- 14 • EXT_SYS_PARAMETER_s is equal to '0',
- 15 • NGHBR_SET_ACCESS_INFO_s is equal to '0', or
- 16 • EXT_SYS_PAR_MSG_SEQ_s is not equal to CONFIG_MSG_SEQ_s.

17 The mobile station shall update the idle handoff Neighbor Set (see 2.6.2.1.4) so that it
18 consists only of pilot offsets listed in the *Neighbor List Message*. If the *Neighbor List*
19 Message contains more pilot offsets than the mobile station can store, the mobile station
20 shall store the pilot offsets beginning at the start of the *Neighbor List Message*, up to the
21 limits of the mobile station's Neighbor Set storage capacity.

22 2.6.2.2.4 CDMA Channel List Message

23 Whenever a *CDMA Channel List Message* is received on the Paging Channel, the
24 configuration message sequence number, CONFIG_MSG_SEQ_r, shall be compared to that
25 stored in CHAN_LST_MSG_SEQ_s. If the comparison results in a match, the mobile station
26 may ignore the message. If the comparison results in a mismatch, then the mobile station
27 shall process the remaining fields in the message as follows.

28 The mobile station shall store the following parameters:

- 29 • Configuration message sequence number
(CONFIG_MSG_SEQ_s = CONFIG_MSG_SEQ_r,
30 CHAN_LST_MSG_SEQ_s = CONFIG_MSG_SEQ_r)

32 The mobile station shall perform the following:

- 33 • If both SYS_PAR_MSG_SEQ_s and EXT_SYS_PAR_MSG_SEQ_s are is current,
34 – If EXT_CHAN_LIST_s is equal to '1', the mobile station shall ignore this message.
35 – If EXT_CHAN_LIST_s is equal to '0', the mobile station shall process this message
36 as described below.

- 1 • Otherwise, the mobile station shall process this message after SYS_PAR_MSG_SEQ_s
 2 and EXT_SYS_PAR_MSG_SEQ_s become current.

3 The mobile station shall use the hash algorithm specified in 2.6.7.1 and the number of
 4 channels listed in the *CDMA Channel List Message* to determine the CDMA Channel
 5 (Frequency Assignment) for its Paging Channel. If the CDMA Frequency Assignment has
 6 changed (the computed CDMA Channel is different from CDMACH_S), the mobile station
 7 shall perform the following actions:

- 8 • Set CDMACH_S to the new CDMA Channel.
- 9 • Set PAGE_CHAN_S to '1'.
- 10 • Set PAGECH_S to the Primary Paging Channel.
- 11 • If the stored configuration parameters is not current (see 2.6.2.2) for the
 corresponding base station and frequency assignment, set CONFIG_MSG_SEQ_S,
 SYS_PAR_MSG_SEQ_S, NGHBR_LST_MSG_SEQ_S, CHAN_LST_MSG_SEQ_S,
 EXT_NGHBR_LST_MSG_SEQ_S, GEN_NGHBR_LST_MSG_SEQ_S,
 EXT_SYS_PAR_MSG_SEQ_S, GLOB_SERV_REDIR_MSG_SEQ_S, USER_ZONE_ID-
 _MSG_SEQ_S, PRI_NGHBR_LST_MSG_SEQ_S, EXT_CHAN_LST_MSG_SEQ_S,
 EXT_GLOB_SERV_REDIR_MSG_SEQ_S, and ACC_MSG_SEQ_S to NULL.
- 18 • Tune to the new CDMA Channel.

19 2.6.2.2.5 Extended System Parameters Message

20 Whenever an *Extended System Parameters Message* is received on the Paging Channel, the
 21 configuration message sequence number, CONFIG_MSG_SEQ_r, shall be compared to that
 22 stored in EXT_SYS_PAR_MSG_SEQ_S. If the comparison results in a match, the mobile
 23 station may ignore the message. If the comparison results in a mismatch, then the mobile
 24 station shall process the remaining fields in the message as follows.

25 If the protocol revision level supported by the mobile station (MOB_P_REV_p) is less than the
 26 minimum protocol revision level supported by the base station (MIN_P_REV_r), the mobile
 27 station shall enter the *System Determination Substate* of the *Mobile Station Initialization State*
 28 with a protocol mismatch indication (see 2.6.1.1). Otherwise, the mobile station shall store
 29 the following parameters:

- 30 • Configuration message sequence number
 (CONFIG_MSG_SEQ_S = CONFIG_MSG_SEQ_r,
 EXT_SYS_PAR_MSG_SEQ_S = CONFIG_MSG_SEQ_r)
- 33 • Preferred Access Channel MSID type (PREF_MSID_TYPE_S = PREF_MSID_TYPE_r)
- 34 • Broadcast slot cycle index (BCAST_INDEX_S = BCAST_INDEX_r)
- 35 • The mobile station shall set its operational IMSI, IMSI_O, as follows:
 - 36 – If IMSI_T_SUPPORTED_r is equal to '0', the mobile station shall set IMSI_O to
 IMSI_M_p.
 - 38 – If IMSI_T_SUPPORTED_r is equal to '1' and the mobile station's IMSI_T_p has been
 programmed, the mobile station shall set IMSI_O to IMSI_T_p.

- If $\text{IMSI_T_SUPPORTED}_r$ is equal to '1' and the mobile station's IMSI_T_p has not been programmed, the mobile station shall set IMSI_O to IMSI_M_p .
- ~~If IMSI_O has been changed, the mobile station shall set SYS_PAR_MSG_SEQ_s and $\text{CHAN_LST_MSG_SEQ}_s$, and $\text{EXT_CHAN_LST_MSG_SEQ}_s$, to NULL, and set PAGE_CHAN_s to '1'.~~
- If $\text{MCC}_r = '1111111111'$ and $\text{IMSI_11_12}_r = '1111111'$, the mobile station shall set the IMSI_O to IMSI_M_p and store:
 - Mobile Country Code ($\text{MCC}_s = \text{MCC}_p$) and
 - IMSI 11th and 12th digits ($\text{IMSI_11_12}_s = \text{IMSI_M_11_12}_p$); otherwise, the mobile station shall store:
 - Mobile Country Code ($\text{MCC}_s = \text{MCC}_r$) and
 - IMSI 11th and 12th digits ($\text{IMSI_11_12}_s = \text{IMSI_11_12}_r$).
- If IMSI_O is set to the IMSI_M , the mobile station shall set:
 - IMSI_O_S_s to IMSI_M_S_p (i.e., IMSI_O_S1_s to IMSI_M_S1_p and IMSI_O_S2_s to IMSI_M_S2_p)
 - IMSI_O_11_12_s to IMSI_M_11_12_p
 - MCC_O_s to MCC_M_p
 - IMSI_O_ADDR_NUM_s to IMSI_M_ADDR_NUM_p
- If IMSI_O is set to the IMSI_T , the mobile station shall set:
 - IMSI_O_S_s to IMSI_T_S_p (i.e., IMSI_O_S1_s to IMSI_T_S1_p and IMSI_O_S2_s to IMSI_T_S2_p).
 - IMSI_O_11_12_s to IMSI_T_11_12_p
 - MCC_O_s to MCC_T_p
 - IMSI_O_ADDR_NUM_s to IMSI_T_ADDR_NUM_p
- ~~If IMSI_O has been changed, the mobile station shall set SYS_PAR_MSG_SEQ_s , $\text{CHAN_LST_MSG_SEQ}_s$, $\text{EXT_CHAN_LST_MSG_SEQ}_s$, to NULL, and set PAGE_CHAN_s to '1', and set PAGECH_s to the Primary Paging Channel.~~
- Protocol revision level ($\text{P_REV}_s = \text{P_REV}_r$) if included in the message; otherwise, set P_REV_s as follows:
 - For Band Class 0, if the mobile station determines it is operating in Korea, set P_REV_s to '00000010'; otherwise, set P_REV_s to '00000011'.
 - For ~~Band Class 2 and~~ Band Class 3, set P_REV_s to '00000011'.
 - For Band Class 1 and Band Class 4, set P_REV_s to '00000001'.

- Minimum protocol revision level ($\text{MIN_P_REV}_s = \text{MIN_P_REV}_r$) if included in the message; otherwise, $\text{MIN_P_REV}_s = '00000010'$ for Band Class 0, $\text{MIN_P_REV}_s = '00000001'$ for Band Class 1 and Band Class 4, and $\text{MIN_P_REV}_s = '00000011'$ for Band Class 3.
- Protocol revision level currently in use ($\text{P_REV_IN_USE}_s = \text{the lesser value of P_REV}_s \text{ and MOB_P_REV}_p$ of the current band class)
- Slope of the handoff add/drop criterion ($\text{SOFT_SLOPE}_s = \text{SOFT_SLOPE}_r$) if included in the message; otherwise, $\text{SOFT_SLOPE}_s = '000000'$.
- Intercept of the handoff add criterion ($\text{ADD_INTERCEPT}_s = \text{ADD_INTERCEPT}_r$)
- Intercept of the handoff drop criterion ($\text{DROP_INTERCEPT}_s = \text{DROP_INTERCEPT}_r$)
- Delete foreign TMSI ($\text{DELETE_FOR_TMSI}_s = \text{DELETE_FOR_TMSI}_r$)
- Use TMSI ($\text{USE_TMSI}_s = \text{USE_TMSI}_r$)
- TMSI zone length ($\text{TMSI_ZONE_LEN}_s = \text{TMSI_ZONE_LEN}_r$)
- TMSI zone number ($\text{TMSI_ZONE}_s = \text{TMSI_ZONE}_r$)
- Maximum number of alternative service options ($\text{MAX_NUM_ALT_SO}_s = \text{MAX_NUM_ALT_SO}_r$) ~~if included in the message; otherwise, $\text{MAX_NUM_ALT_SO}_s = '000'$.~~
- System reselection indicator ($\text{RESELECT_INCLUDED}_s = \text{RESELECT_INCLUDED}_r$) if included in the message; otherwise, $\text{RESELECT_INCLUDED}_s = '0'$.
- Pilot reporting indicator ($\text{PILOT_REPORT}_s = \text{PILOT_REPORT}_r$)
- Neighbor Set access entry handoff information indicator ($\text{NGHBR_SET_ENTRY_INFO}_s = \text{NGHBR_SET_ENTRY_INFO}_r$) if included in the message; otherwise, $\text{NGHBR_SET_ENTRY_INFO}_s = '0'$.
- Neighbor Set access handoff information indicator ($\text{NGHBR_SET_ACCESS_INFO}_s = \text{NGHBR_SET_ACCESS_INFO}_r$) if included in the message; otherwise, $\text{NGHBR_SET_ACCESS_INFO}_s = '0'$.
- Short Data Burst supported indicator ($\text{SDB_SUPPORTED}_s = \text{SDB_SUPPORTED}_r$)
- Nominal reverse traffic channel output power offset relative to Reverse Pilot Channel power ($\text{RLGAIN_TRAFFIC_PILOT}_s = \text{RLGAIN_TRAFFIC_PILOT}_r$)
- Broadcast GPS Assist Indicator ($\text{BROADCAST_GPS_ASST}_s = \text{BROADCAST_GPS_ASST}_r$)
- Reverse Power Control Delay ($\text{REV_PWR_CNTL_DELAY}_s = \text{REV_PWR_CNTL_DELAY}_r$) if included
- Permission for the mobile station to request QoS settings in the *Origination Message*, *Origination Continuation Message*, or *Enhanced Origination Message* ($\text{MOB_QOS}_s = \text{MOB_QOS}_r$)
- If ENC_SUPPORTED_r is equal to '1', the mobile station shall store:

- Signal encryption supported indicator ($SIG_ENCRYPT_SUP_s = SIG_ENCRYPT_SUP_r$)
- User information encryption supported indicator ($UI_ENCRYPT_SUP_s = UI_ENCRYPT_SUP_r$)
 - Store encryption key indicator ($STORE_KEY_s = STORE_KEY_r$)**
- Sync ID supported indicator ($USE_SYNC_ID_s = USE_SYNC_ID_r$)
- Concurrent services supported indicator ($CS_SUPPORTED_s = CS_SUPPORTED_r$)
- Primary Broadcast Control Channel supported indicator ($BCCH_SUPPORTED_s = BCCH_SUPPORTED_r$).**
- Pilot information request supported indicator ($PILOT_INFO_REQ_SUPPORTED_s = PILOT_INFO_REQ_SUPPORTED_r$).**

If $BCCH_SUPPORTED_s$ equals ‘1’, the mobile station shall enter the *System Determination Substate* of the *Mobile Station Initialization State* with a new system indication.

If $P_REV_IN_USE_s$ has been changed, the mobile station shall set $ACC_MSG_SEQ_s$, $CURR_ACC_MSG_SEQ$, $SYS_PAR_MSG_SEQ_s$, $EXT_NGHBR_LST_MSG_SEQ_s$, $GEN_NGHBR_LST_MSG_SEQ_s$, and $GLOB_SERV_REDIR_MSG_SEQ_s$ to NULL.

If $NGHBR_SET_ENTRY_INFO$ is equal to ‘1’, the mobile station shall store the access entry handoff in order and message processing operation indicator ($ACC_ENT_HO_ORDER_s = ACC_ENT_HO_ORDER_r$).

If the mobile station supports packet data service options and the $PACKET_ZONE_ID$ field is included in the message, the mobile station shall store the packet data services zone identifier ($PACKET_ZONE_ID_s = PACKET_ZONE_ID_r$); otherwise, the mobile station shall set $PACKET_ZONE_ID_s$ to ‘00000000’.

If $RESELECT_INCLUDED_s$ is equal to ‘1’, the mobile station shall store:

- Pilot power threshold ($EC_THRESH_s = EC_THRESH_r$)
- Pilot E_c/I_o threshold ($EC_IO_THRESH_s = EC_IO_THRESH_r$)

If $NGHBR_SET_ACCESS_INFO_s$ is equal to ‘1’, the mobile station shall store:

- Access handoff permitted indicator ($ACCESS_HO_s = ACCESS_HO_r$)
- Access probe handoff permitted indicator ($ACCESS_PROBE_HO_s = ACCESS_PROBE_HO_r$)
- If $ACCESS_PROBE_HO_s$ is equal to ‘1’, access handoff list update permitted indicator ($ACC_HO_LIST_UPD_s = ACC_HO_LIST_UPD_r$)
- Maximum number of times that the mobile station is permitted to perform an access probe handoff ($MAX_NUM_PROBE_HO_s = MAX_NUM_PROBE_HO_r$)
- Access handoff permitted for message response indicator ($ACCESS_HO_MSG_RSP_s = ACCESS_HO_MSG_RSP_r$)

- Access probe handoff permitted for other messages indicator
(ACC_PROBE_HO_OTHER_MSG_s = ACC_PROBE_HO_OTHER_MSG_r)
- If NGHBR_SET_ENTRY_INFO_s or NGHBR_SET_ACCESS_INFO_s is equal to '1', the mobile station shall store the size of the Neighbor Set (NGHBR_SET_SIZE_s = NGHBR_SET_SIZE_r).
If NGHBR_SET_ENTRY_INFO_s is equal to '0', then for all NGHBR_SET_SIZE_s occurrences of ACCESS_ENTRY_HO, the mobile station shall set the ACCESS_ENTRY_HO field of NGHBR_REC[i] to '0'.
If NGHBR_SET_ENTRY_INFO_s is equal to '1', then for all NGHBR_SET_SIZE_s occurrences of ACCESS_ENTRY_HO, the mobile station shall set the ACCESS_ENTRY_HO field of NGHBR_REC[i] to the ith occurrence of ACCESS_ENTRY_HO_r.
If NGHBR_SET_ACCESS_INFO_s is equal to '0', then for all NGHBR_SET_SIZE_s occurrences of ACCESS_HO_ALLOWED, the mobile station shall set the ACCESS_HO_ALLOWED field of NGHBR_REC[i] to '0'.
If NGHBR_SET_ACCESS_INFO_s is equal to '1', then for all NGHBR_SET_SIZE_s occurrences of ACCESS_HO_ALLOWED, the mobile station shall set the ACCESS_HO_ALLOWED field of NGHBR_REC[i] to the ith occurrence of ACCESS_HO_ALLOWED_r.
- The mobile station shall set all bits of TMSI_CODE_{s-p} to '1' if all of the following conditions are met:
- The bits of TMSI_CODE_{s-p} are not all equal to '1',
 - DELETE_FOR_TMSI_s is equal to '1', and
 - ASSIGNING_TMSI_ZONE_LEN_{s-p} is not equal to TMSI_ZONE_LEN_s, or the least significant ASSIGNING_TMSI_ZONE_LEN_{s-p} octets of ASSIGNING_TMSI_ZONE_{s-p} are not equal to TMSI_ZONE_s.
- If the mobile station supports the Quick Paging Channel operation:
- The mobile station shall set QPCH_SUPPORTED_s to QPCH_SUPPORTED_r.
 - If QPCH_SUPPORTED_r = '1':
 - The mobile station shall set QPCH_RATE_s to QPCH_RATE_r.
 - If the number of Quick Paging Channels specified in the received message (NUM_QPCH_r) is different from NUM_QPCH_s, the mobile station shall use the hash algorithm specified in 2.6.7.1 to select a new Quick Paging Channel number in the range 1 to NUM_QPCH_r. The mobile station shall store the new Quick Paging Channel number as QPAGECH_s and as ASSIGNED_QPAGECH_s. The mobile station shall then set NUM_QPCH_s to NUM_QPCH_r.
 - The mobile station shall set QPCH_POWER_LEVEL_PAGE_s to QPCH_POWER_LEVEL_PAGE_r.
 - The mobile station shall set QPCH_CCI_SUPPORTED_s to QPCH_CCI_SUPPORTED_r.

- 1 – If QPCH_CCI_SUPPORTED_r = ‘1’, the mobile station shall set
 2 QPCH_POWER_LEVEL_CONFIG_s to QPCH_POWER_LEVEL_CONFIG_r.

3 If the mobile station supports the *Device Information Message* on the r-csch, the mobile
 4 station shall store:

- 5 • Autonomous message supported indicator
 6 (AUTO_MSG_SUPPORTED_s = AUTO_MSG_SUPPORTED_r)

7 If AUTO_MSG_SUPPORTED_r is equal to ‘1’ and the mobile station supports the *Device*
 8 *Information Message* on the r-csch, the mobile station shall store:

- 9 • Autonomous message interval
 10 (AUTO_MSG_INTERVAL_s = AUTO_MSG_INTERVAL_r)

11 The mobile station shall store mobile station initiated position location determination
 12 supported indicator (MS_INIT_POS_LOC_SUP_IND_s = MS_INIT_POS_LOC_SUP_IND_r).

13 2.6.2.2.6 Global Service Redirection Message

14 Whenever a *Global Service Redirection Message* is received on the Paging Channel, the
 15 configuration message sequence number, CONFIG_MSG_SEQ_r, shall be compared to that
 16 stored in GLOB_SERV_REDIR_MSG_SEQ_s. If the comparison results in a match or if
 17 SYS_PAR_MSG_SEQ_s is not current, the mobile station may ignore the message; otherwise,
 18 the mobile station shall store the following parameters:

- 19 • Configuration message sequence number
 20 (CONFIG_MSG_SEQ_s = CONFIG_MSG_SEQ_r,
 21 GLOB_SERV_REDIR_MSG_SEQ_s = CONFIG_MSG_SEQ_r)
- 22 • ~~If the P_REV_IN_USE_s is equal to or greater than 6, the~~ The mobile station shall
 23 ignore this message, if any of the following conditions is true:
 - 24 – EXT_GLOBAL_REDIRECT_s = ‘1’
 - 25 – EXCL_P_REV_MS_r = ‘1’

26 If the subfield corresponding to the access overload class, ACCOLC_p, of the mobile station
 27 is set equal to ‘1’ in the REDIRECT_ACCOLC_r field of the received message, the mobile
 28 station shall store the following parameters and then shall enter the *System Determination*
 29 *Substate* of the *Mobile Station Initialization State* with a redirection indication (see 2.6.1.1):

- 30 • Return if fail indicator (RETURN_IF_FAIL_s = RETURN_IF_FAIL_r)
- 31 • If DELETE_TMSI_r is equal to ‘1’, the mobile station shall set all the bits of
 32 TMSI_CODE_{s-p} to ‘1’
- 33 • Redirection record (REDIRECT_REC_s = redirection record from received message)
- 34 • If RECORD_TYPE_r = ‘00000001’, the mobile station shall:
 - 35 – Set CDMA_MODE_s to ‘1’
 - 36 – Set DIGITAL_REG_{s-p} to ‘00000000’
 - 37 – Max delay upon redirection (MAX_REDIRECT_DELAY_s =
 38 MAX_REDIRECT_DELAY_r)

1 2.6.2.2.7 Extended Neighbor List Message

2 Whenever a valid *Extended Neighbor List Message* is received on the current Paging Channel
 3 (PAGECH_S), the configuration message sequence number, CONFIG_MSG_SEQ_r , shall be
 4 compared to that stored in $\text{EXT_NGHBR_LST_MSG_SEQ}_S$. If the comparison results in a
 5 match, the mobile station may ignore the message. If the comparison results in a
 6 mismatch, then the mobile station shall process the remaining fields in the message as
 7 follows.

8 If the PILOT_INC field is not within the valid range specified in 3.7.2.3.2.14, then the mobile
 9 station shall ignore the *Extended Neighbor List Message* that contains it.

10 The mobile station shall store the following parameters:

- 11 • Configuration message sequence number
 12 ($\text{CONFIG_MSG_SEQ}_S = \text{CONFIG_MSG_SEQ}_r$,
 13 $\text{EXT_NGHBR_LST_MSG_SEQ}_S = \text{CONFIG_MSG_SEQ}_r$,
 14 $\text{NGHBR_LST_MSG_SEQ}_S = \text{CONFIG_MSG_SEQ}_r$)
- 15 • Pilot PN sequence offset increment ($\text{PILOT_INC}_S = \text{PILOT_INC}_r$)

16 The mobile station shall set NGHBR_SET_SIZE_S to the number of neighboring base stations
 17 contained in the *Extended Neighbor List Message*.

18 For each of the neighboring base stations contained in the *Extended Neighbor List Message*,
 19 if FREQ_INCL_r equals ‘0’, or if FREQ_INCL_r equals ‘1’ and NGHBR_BAND_r is supported, the
 20 mobile station shall do the following:

- 21 • If the i^{th} occurrence of NGHBR_CONFIG_r is equal to ‘000’, ‘001’, or ‘010’, set the
 22 NGHBR_CONFIG field of $\text{NGHBR_REC}[i]$ to the i^{th} occurrence of NGHBR_CONFIG_r ;
 23 otherwise, set the NGHBR_CONFIG field of $\text{NGHBR_REC}[i]$ to ‘011’.
- 24 • Set the NGHBR_PN field of $\text{NGHBR_REC}[i]$ to the i^{th} occurrence of NGHBR_PN_r .
- 25 • Set the SEARCH_PRIORITY field of $\text{NGHBR_REC}[i]$ to the i^{th} occurrence of
 26 SEARCH_PRIORITY_r .

27 For each of the neighboring base stations contained in the *Extended Neighbor List Message*,
 28 if FREQ_INCL_r equals ‘1’ and NGHBR_BAND_r is supported, the mobile station shall also do
 29 the following:

- 30 • Set the NGHBR_BAND field of $\text{NGHBR_REC}[i]$ to the i^{th} occurrence of
 31 NGHBR_BAND_r .
- 32 • Set the NGHBR_FREQ field of $\text{NGHBR_REC}[i]$ to the i^{th} occurrence of
 33 NGHBR_FREQ_r .

34 For each of the neighboring base stations contained in the *Extended Neighbor List Message*,
 35 if FREQ_INCL_r equals ‘0’, the mobile station shall also do the following:

- 36 • Set the NGHBR_BAND field of $\text{NGHBR_REC}[i]$ to CDMABAND_S .
- 37 • Set the NGHBR_FREQ field of $\text{NGHBR_REC}[i]$ to CDMACH_S .

1 If GEN_NGHBR_LST_MSG_SEQ_S is not equal to CONFIG_MSG_SEQ_S, the mobile station
 2 shall do the following:

- 3 • Set the SRCH_WIN_NGHBR field of NGHBR_REC to SRCH_WIN_N_S for all
 4 NGHBR_SET_SIZE_S entries.
- 5 • Set the SRCH_OFFSET_NGHBR field of NGHBR_REC to '000' for all entries.
- 6 • Set NUM_ANALOG_NGHBR_S to '000' and set ANALOG_NGHBR_LIST to NULL.

7 The mobile station shall set the ACCESS_ENTRY_HO field of the NGHBR_REC to '0' for all
 8 NGHBR_SET_SIZE_S entries if any of the following conditions are met:

- 9 • EXT_SYS_PARAMETER_S is equal to '0',
 10 • NGHBR_SET_ENTRY_INFO_S is equal to '0', or
 11 • EXT_SYS_PAR_MSG_SEQ_S is not equal to CONFIG_MSG_SEQ_S.

12 The mobile station shall set the ACCESS_HO_ALLOWED field of the NGHBR_REC to '0' for
 13 all NGHBR_SET_SIZE_S entries if any of the following conditions are met:

- 14 • EXT_SYS_PARAMETER_S is equal to '0',
 15 • NGHBR_SET_ACCESS_INFO_S is equal to '0', or
 16 • EXT_SYS_PAR_MSG_SEQ_S is not equal to CONFIG_MSG_SEQ_S.

17 The mobile station shall update the idle handoff Neighbor Set (see 2.6.2.1.4) so that it
 18 consists only of pilot offsets listed in the *Extended Neighbor List Message*. If the *Extended*
 19 *Neighbor List Message* contains more pilot offsets than the mobile station can store, the
 20 mobile station shall store the pilot offsets beginning at the start of the *Extended Neighbor*
 21 *List Message*, up to the limits of the mobile station's Neighbor Set storage capacity.

22 2.6.2.2.8 General Neighbor List Message

23 Whenever a valid *General Neighbor List Message* is received on the current Paging Channel
 24 (PAGECH_S), the configuration message sequence number, CONFIG_MSG_SEQ_R shall be
 25 compared to that stored in GEN_NGHBR_LST_MSG_SEQ_S. If the comparison results in a
 26 mismatch, then the mobile station shall process the remaining fields in the message as
 27 follows.

28 If the PILOT_INC field is not within the valid range specified in 3.7.2.3.2.22, then the mobile
 29 station shall ignore the *General Neighbor List Message* that contains it.

30 The mobile station shall store the following parameters:

- 31 • Configuration message sequence number
 32 (CONFIG_MSG_SEQ_S = CONFIG_MSG_SEQ_R,
 33 GEN_NGHBR_LST_MSG_SEQ_S = CONFIG_MSG_SEQ_R).
- 34 • Pilot PN sequence offset increment (PILOT_INC_S = PILOT_INC_R).

35 If NGHBR_CONFIG_PN_INCL_R is equal to '1' and FREQ_FIELDS_INCL_R is equal to '1', the
 36 mobile station shall store the following parameters:

- 1 • Configuration message sequence number
 2 (EXT_NGHBR_LST_MSG_SEQ_s = CONFIG_MSG_SEQ_r,
 3 NGHBR_LST_MSG_SEQ_s = CONFIG_MSG_SEQ_r).

4 The mobile station shall set NGHBR_SET_SIZE_s to the number of neighboring base stations
 5 contained in the *General Neighbor List Message*.

6 For each of the neighboring base stations contained in the *General Neighbor List Message*, if
 7 FREQ_INCL_r equal ‘0’, or if FREQ_INCL_r equal ‘1’ and NGHBR_BAND_r is supported, the
 8 mobile station shall do the following:

- 9 • If NGHBR_CONFIG_PN_INCL_r is equal to ‘1’, set the NGHBR_CONFIG and
 10 NGHBR_PN fields as follows:
 - 11 – If the ith occurrence of NGHBR_CONFIG_r is equal to ‘000’, ‘001’, or ‘010’, set the
 12 NGHBR_CONFIG field of NGHBR_REC[i] to the ith occurrence of
 13 NGHBR_CONFIG_r; otherwise, set the NGHBR_CONFIG field of NGHBR_REC[i] to
 14 ‘011’.
 - 15 – Set the NGHBR_PN field of NGHBR_REC[i] to the ith occurrence of NGHBR_PN_r.
- 16 • If NGHBR_SRCH_MODE_r = ‘00’ or ‘10’ and EXT_NGHBR_LST_MSG_SEQ_s is not
 17 equal to CONFIG_MSG_SEQ_r, set SEARCH_PRIORITY field of each NGHBR_REC to
 18 ‘10’ (high) for all NGHBR_SET_SIZE_s entries.
- 19 • If NGHBR_SRCH_MODE_r = ‘01’ or ‘11’, set the SEARCH_PRIORITY field of
 20 NGHBR_REC[i] to the ith occurrence of SEARCH_PRIORITY_r.
- 21 • If NGHBR_SRCH_MODE_r = ‘00’ or ‘01’, set the SRCH_WIN_NGHBR field of each
 22 NGHBR_REC to SEARCH_WIN_s for all NGHBR_SET_SIZE_s entries if
 23 SYS_PAR_MSG_SEQ_s is equal to CONFIG_MSG_SEQ_r; otherwise, set
 24 SETTING_SEARCH_WIN to ‘1’.
- 25 • If NGHBR_SRCH_MODE_r = ‘00’ or ‘01’, set the SRCH_OFFSET_NGHBR field of each
 26 NGHBR_REC to ‘000’.
- 27 • If NGHBR_SRCH_MODE_r = ‘10’ or ‘11’:
 - 28 – set the SRCH_WIN_NGHBR field of NGHBR_REC[i] to the ith occurrence of
 29 SRCH_WIN_NGHBR_r
 - 30 – if SRCH_OFFSET_INCL_r equals to ‘1’, set the SRCH_OFFSET_NGHBR field of
 31 NGHBR_REC[i] to the ith occurrence of SRCH_OFFSET_NGHBR_r, and
 - 32 – if SRCH_OFFSET_INCL_r equals to ‘0’, set the SRCH_OFFSET_NGHBR field of
 33 each NGHBR_REC to ‘000’.
- 34 • If USE_TIMING_r is equal to ‘1’, set the TIMING_INCL field of NGHBR_REC[i] to the
 35 ith occurrence of TIMING_INCL_r; otherwise, set the TIMING_INCL field of
 36 NGHBR_REC to ‘0’ for all entries.

- If BCCH_IND_INCL_r is equal to ‘1’, set the BCCH_SUPPORT field of NGHBR_REC[i] to the ith occurrence of BCCH_SUPPORT_r; otherwise, set the BCCH_IND_INCL field of NGHBR_REC to ‘0’ for all entries.

For each of the neighboring base stations contained in the *General Neighbor List Message*, if FREQ_FIELDS_INCL_r equals ‘1’, FREQ_INCL_r equals ‘1’, and NGHBR_BAND_r is supported, the mobile station shall also perform the following:

- Set the NGHBR_BAND field of NGHBR_REC[i] to the ith occurrence of NGHBR_BAND_r.
- Set the NGHBR_FREQ field of NGHBR_REC[i] to the ith occurrence of NGHBR_FREQ_r.

For each of the neighboring base stations contained in the *General Neighbor List Message*, if USE_TIMING_r is equal to ‘1’ and TIMING_INCL_r equals ‘1’, the mobile station shall also perform the following:

- Set the NGHBR_TX_OFFSET field of NGHBR_REC[i] to the ith occurrence of NGHBR_TX_OFFSET_r.
- If GLOBAL_TIMING_INCL_r is equal to ‘1’, then the mobile station shall:
 - Set the NGHBR_TX_DURATION field of NGHBR_REC to GLOBAL_TX_DURATION_r for all entries.
 - Set the NGHBR_TX_PERIOD field of NGHBR_REC to GLOBAL_TX_PERIOD_r for all entries.
- If GLOBAL_TIMING_INCL_r is equal to ‘0’, then the mobile station shall:
 - Set the NGHBR_TX_DURATION field of NGHBR_REC[i] to the ith occurrence of NGHBR_TX_DURATION_r.
 - Set the NGHBR_TX_PERIOD field of NGHBR_REC[i] to the ith occurrence of NGHBR_TX_PERIOD_r.

For each of the neighboring base stations contained in the *General Neighbor List Message*, if FREQ_FIELDS_INCL_r equals ‘1’ and FREQ_INCL_r equals ‘0’, or if FREQ_FIELDS_INCL_r equals ‘0’ and EXT_NGHBR_LST_MSG_SEQ_s is not equal to CONFIG_MSG_SEQ_r, the mobile station shall also do the following:

- Set the NGHBR_BAND field of NGHBR_REC[i] to CDMABAND_s.
- Set the NGHBR_FREQ field of NGHBR_REC[i] to CDMACH_s.

The mobile station shall set the ACCESS_ENTRY_HO field of the NGHBR_REC to ‘0’ for all NGHBR_SET_SIZE_s entries if any of the following conditions are met:

- EXT_SYS_PARAMETER_s is equal to ‘0’
- NGHBR_SET_ENTRY_INFO_s is equal to ‘0’, or
- EXT_SYS_PAR_MSG_SEQ_s is not equal to CONFIG_MSG_SEQ_s.

1 The mobile station shall set the ACCESS_HO_ALLOWED field of the NGHBR_REC to '0' for
 2 all NGHBR_SET_SIZE_s entries if any of the following conditions are met:

- 3 • EXT_SYS_PARAMETER_s is equal to '0'
- 4 • NGHBR_SET_ACCESS_INFO_s is equal to '0', or
- 5 • EXT_SYS_PAR_MSG_SEQ_s is not equal to CONFIG_MSG_SEQ_s.

6 The mobile station shall update the idle handoff Neighbor Set (see 2.6.2.1.4) so that it
 7 consists only of pilot offsets listed in the *General Neighbor List Message*. If the *General*
 8 *Neighbor List Message* contains more pilot offsets than the mobile station can store, the
 9 mobile station shall store the pilot offsets beginning at the start of the *General Neighbor List*
 10 *Message*, up to the limits of the mobile station's Neighbor Set storage capacity.

11 The mobile station shall set NUM_ANALOG_NGHBR_s to NUM_ANALOG_NGHBR_r, the
 12 number of neighboring analog systems contained in the *General Neighbor List Message*. For
 13 each of the neighboring analog systems contained in the *General Neighbor List Message*, the
 14 mobile station shall perform the following:

- 15 • Set the BAND_CLASS field of ANALOG_NGHBR_LIST[i] to the ith occurrence of
 16 BAND_CLASS_r.
- 17 • Set the SYS_A_B field of ANALOG_NGHBR_LIST[i] to the ith occurrence of SYS_A_B_r.

18 For each of the neighboring base stations contained in the *General Neighbor List Message*,
 19 the mobile station shall set the ADD_PILOT_REC_INCL field of NGHBR_REC[i] to the ith
 20 occurrence of ADD_PILOT_REC_INCL_r. If ADD_PILOT_REC_INCL_r equals '1', for each pilot
 21 included in the message, the mobile station shall also perform the following:

- 22 • Set the NGHBR_PILOT_REC_TYPE field of NGHBR_PILOT_REC to
 23 NGHBR_PILOT_REC_TYPE_r.
- 24 • If NGHBR_PILOT_REC_TYPE_r is equal to '000'. The mobile station shall:
 - 25 – Set the TD_POWER_LEVEL field of NGHBR_PILOT_REC to TD_POWER_LEVEL_r.
 - 26 – Set the TD_MODE field of NGHBR_PILOT_REC to TD_MODE_r.
- 27 • If NGHBR_PILOT_REC_TYPE_r is equal to '001', the mobile station shall:
 - 28 – Set the AUX_PILOT_QOF field of NGHBR_PILOT_REC to QOF_r.
 - 29 – Set the AUX_PILOT_WALSH_CODE field of NGHBR_PILOT_REC to
 30 AUX_PILOT_WALSH_r with the Walsh Code length specified by WALSH_LENGTH_r.
- 31 • If NGHBR_PILOT_REC_TYPE_r is equal to '010', the mobile station shall:
 - 32 – Set the AUX_PILOT_QOF field of NGHBR_PILOT_REC to QOF_r.
 - 33 – Set the AUX_PILOT_WALSH_CODE field of NGHBR_PILOT_REC to
 34 AUX_PILOT_WALSH_r with the Walsh Code length specified by WALSH_LENGTH_r.
 - 35 – Set the AUX_TD_POWER_LEVEL field of NGHBR_PILOT_REC to
 36 AUX_TD_POWER_LEVEL_r.
 - 37 – Set the TD_MODE field of NGHBR_PILOT_REC to TD_MODE_r.

- If NGHBR_PILOT_REC_TYPE_r is equal to '011', the mobile station shall:
 - Set the SR3_PRIMARY_PILOT field of NGHBR_PILOT_REC to SR3_PRIMARY_PILOT_r.
 - Set the SR3_PILOT_POWER1 field of NGHBR_PILOT_REC to SR3_PILOT_POWER1_r.
 - Set the SR3_PILOT_POWER2 field of NGHBR_PILOT_REC to SR3_PILOT_POWER2_r.
- If NGHBR_PILOT_REC_TYPE_r is equal to '100', the mobile station shall:
 - Set the SR3_PRIMARY_PILOT field of NGHBR_PILOT_REC to SR3_PRIMARY_PILOT_r.
 - Set the SR3_PILOT_POWER1 field of NGHBR_PILOT_REC to SR3_PILOT_POWER1_r.
 - Set the SR3_PILOT_POWER2 field of NGHBR_PILOT_REC to SR3_PILOT_POWER2_r.
 - Set the AUX_PILOT_QOF field of NGHBR_PILOT_REC to QOF_r.
 - Set the AUX_PILOT_WALSH_CODE field of NGHBR_PILOT_REC to AUX_PILOT_WALSH_r with the Walsh Code length specified by WALSH_LENGTH_r.
 - If ADD_INFO_INCL1_r is equal to '1', set the AUX_PILOT_QOF1 field of NGHBR_PILOT_REC to QOF1_r and set the AUX_PILOT_WALSH_CODE1 field of NGHBR_PILOT_REC to AUX_PILOT_WALSH1_r with the Walsh Code length specified by WALSH_LENGTH1_r.
 - Otherwise, set the AUX_PILOT_QOF1 field of NGHBR_PILOT_REC to QOF_r and set the AUX_PILOT_WALSH_CODE1 field of NGHBR_PILOT_REC to AUX_PILOT_WALSH_r with the Walsh Code length specified by WALSH_LENGTH_r.
 - If ADD_INFO_INCL2_r is equal to '1', set the AUX_PILOT_QOF2 field of NGHBR_PILOT_REC to QOF2_r and set the AUX_PILOT_WALSH_CODE2 field of NGHBR_PILOT_REC to AUX_PILOT_WALSH2_r with the Walsh Code length specified by WALSH_LENGTH2_r.
 - Otherwise, set the AUX_PILOT_QOF2 field of NGHBR_PILOT_REC to QOF_r and set the AUX_PILOT_WALSH_CODE2 field of NGHBR_PILOT_REC to AUX_PILOT_WALSH_r with the Walsh Code length specified by WALSH_LENGTH_r.

2.6.2.2.9 User Zone Identification Message

Whenever a *User Zone Identification Message* is received on the Paging Channel or Primary Broadcast Control Channel, and if the mobile station supports Tiered Services, the mobile station shall compare the configuration message sequence number, CONFIG_MSG_SEQ_r, to that stored in USER_ZONE_ID_MSG_SEQs. If the comparison results in a match, the mobile station may ignore the message. If the comparison results in a mismatch, then the mobile station shall process the remaining fields in the message as follows.

1 The mobile station shall store the following parameters:

- 2 • Configuration message sequence number
(CONFIG_MSG_SEQ_S = CONFIG_MSG_SEQ_r,
3 USER_ZONE_ID_MSG_SEQ_S = CONFIG_MSG_SEQ_r)
- 4
- 5 • UZ_EXIT_RCVD_S = UZ_EXIT_r

6 The mobile station shall set NUM_UZID_S to the number of User Zones contained in the *User*
7 *Zone Identification Message*.

8 For each User Zone contained in the *User Zone Identification Message*, the mobile station
9 shall do the following:

- 10 • Set the UZID field of UZ_REC(i) to the ith occurrence of UZID_r.
- 11 • Set the UZ_REV field of the UZ_REC(i) to the ith occurrence of UZ_REV_r.
- 12 • Set the TEMP_SUB field of the UZ_REC(i) to the ith occurrence of TEMP_SUB_r.

13 2.6.2.2.10 Private Neighbor List Message

14 Whenever a *Private Neighbor List Message* is received on the Paging Channel or Primary
15 Broadcast Control Channel, and if the mobile station supports Tiered Services, the mobile
16 station shall compare the configuration message sequence number, CONFIG_MSG_SEQ_r, to
17 that stored in PRI_NGHBR_LST_MSG_SEQ_S. If the comparison results in a match, the
18 mobile station may ignore the message. If the comparison results in a mismatch, then the
19 mobile station shall process the remaining fields in the message as follows.

20 The mobile station shall store the following parameters:

- 21 • Configuration message sequence number
(CONFIG_MSG_SEQ_S = CONFIG_MSG_SEQ_r,
22 PRI_NGHBR_LST_MSG_SEQ_S = CONFIG_MSG_SEQ_r)
- 23
- 24 • Common configuration included indicator (COMMON_INCL_S = COMMON_INCL_r)

25 The mobile station shall set NUM_PRI_NGHBR_S to the number of Private Neighbor base
26 stations contained in the *Private Neighbor List Message*.

27 For each Private Neighbor base station contained in the *Private Neighbor List Message* the
28 mobile station shall do the following:

- 29 • Set the SRCH_WIN_PRI_NGHBR field of PRI_NGHBR_REC(i) to SRCH_WIN_PN_r.
- 30 • Set the SID field of PRI_NGHBR_REC(i) to the ith occurrence SID_r.
- 31 • Set the NID field of PRI_NGHBR_REC(i) to the ith occurrence NID_r.
- 32 • Set the PRI_NGHBR_PN field of PRI_NGHBR_REC(i) to the ith occurrence
33 PRI_NGHBR_PN_r.
- 34 • If COMMON_INCL_r is equal to ‘1’, then the mobile station shall:
 - 35 – Set the BAND_CLASS field of PRI_NGHBR_REC(i) to COMMON_BAND_CLASS_r.
 - 36 – Set the NGHBR_FREQ field of PRI_NGHBR_REC(i) to COMMON_NGHBR_FREQ_r.

- If COMMON_INCL_r is equal to ‘0’, then the mobile station shall:
 - Set the BAND_CLASS field of PRI_NGHBR_REC(i) to the ith occurrence of BAND_CLASS_r.
 - Set the NGHBR_FREQ field of PRI_NGHBR_REC(i) to the ith occurrence of NGHBR_FREQ_r.
- If ith occurrence of UZID_INCL_r is equal to ‘0’, then the mobile station shall set the PS_NUM_UZID field of PRI_NGHBR_REC(i) to ‘0000’.
- If ith occurrence of UZID_INCL_r is equal to ‘1’, then the mobile station shall set the PS_NUM_UZID field of PRI_NGHBR_REC(i) to the NUM_UZID_r associated with the ith occurrence of UZID_INCL_r.
- For each User Zone supported by the ith private system, the mobile station shall do the following:
 - Set the PS_UZID(j) field of PRI_NGHBR_REC(i) to the jth occurrence of UZID_r.
 - Set the PS_UZ_REV(j) field of PRI_NGHBR_REC(i) to the jth occurrence of UZ_REV_r.
 - Set the PS_TEMP_SUB(j) field of PRI_NGHBR_REC(i) to the jth occurrence of TEMP_SUB_r.

2.6.2.2.11 Extended Global Service Redirection Message

Whenever an *Extended Global Service Redirection Message* is received on the Paging Channel or Primary Broadcast Control Channel, the configuration message sequence number, CONFIG_MSG_SEQ_r, shall be compared to that stored in EXT_GLOB_SERV_REDIR_MSG_SEQ_s. If the comparison results in a match, the mobile station may ignore the message. If the comparison results in a mismatch, the mobile station shall store the following parameters:

- Configuration message sequence number
(CONFIG_MSG_SEQ_s = CONFIG_MSG_SEQ_r,
GLOB_SERV_REDIR_MSG_SEQ_s= CONFIG_MSG_SEQ_r,
EXT_GLOB_SERV_REDIR_MSG_SEQ_s= CONFIG_MSG_SEQ_r)

The mobile station shall ignore the rest of the message if any of the following conditions is satisfied:

- The subfield corresponding to the access overload class, ACCOLC_p, of the mobile station is set equal to ‘0’ in the REDIRECT_ACCOLC_r field of the received message,
- MOB_P_REV_p is not in the redirection mobile protocol revision range (i.e., REDIRECT_P_REV_INCL_r = ‘1’ and EXCL_P_REV_IND_r = ‘0’, and MOB_P_REV_p < REDIRECT_P_MIN_r or MOB_P_REV_p >REDIRECT_P_MAX_r), or
- MOB_P_REV_p is in the excluded mobile protocol revision range (i.e., REDIRECT_P_REV_INCL_r = ‘1’ and EXCL_P_REV_IND_r = ‘1’ and (REDIRECT_P_MIN_r ≤ MOB_P_REV_p ≤ REDIRECT_P_MAX_r)).

Otherwise, the mobile station shall store the following parameters and then shall enter the *System Determination Substate* of the *Mobile Station Initialization State* with a redirection indication (see 2.6.1.1):

- If DELETE_TMSI_r is equal to '1', the mobile station shall set all the bits of TMSI_CODE_{s-p} to '1'.
- Return if fail indicator ($\text{RETURN_IF_FAIL}_s = \text{RETURN_IF_FAIL}_r$).
- Redirection record ($\text{REDIRECT_REC}_s = \text{redirection record from received message}$)
- If $\text{RECORD_TYPE}_r = '00000001'$, the mobile station shall:
 - Set CDMA_MODE_s to '1'
 - Set DIGITAL_REG_{s-p} to '00000000'
 - Max delay upon redirection ($\text{MAX_REDIRECT_DELAY}_s = \text{MAX_REDIRECT_DELAY}_r$)

2.6.2.2.12 Extended CDMA Channel List Message Overview

The mobile station may receive the *Extended CDMA Channel List Message* from the Paging Channel or from the Primary Broadcast Control Channel. The mobile station shall follow requirements defined in 2.6.2.2.12.1 or 2.6.2.2.12.2 to process the *Extended CDMA Channel List Message*.

2.6.2.2.12.1 Extended CDMA Channel List Message on Paging Channel

Whenever an *Extended CDMA Channel List Message* is received on the Paging Channel, the mobile station shall compare the configuration message sequence number, CONFIG_MSG_SEQ_r , to that stored in $\text{EXT_CHAN_LST_MSG_SEQ}_s$. If the comparison results in a match, the mobile station may ignore the message. If the comparison results in a mismatch, then the mobile station shall process the remaining fields in the message as follows:

The mobile station shall store the following parameters:

- Configuration message sequence number ($\text{CONFIG_MSG_SEQ}_s = \text{CONFIG_MSG_SEQ}_r$, $\text{EXT_CHAN_LST_MSG_SEQ}_s = \text{CONFIG_MSG_SEQ}_r$, $\text{CHAN_LST_MSG_SEQ}_s = \text{CONFIG_MSG_SEQ}_r$).

The mobile station shall determine the CDMA Channel (Frequency Assignment) for its Paging Channel as follows:

- If $\text{RC_QPCH_SEL_INCL}_r$ is equal to '1' and the mobile station is capable of RC greater than 2 or capable of supporting Quick Paging Channel, the mobile station shall eliminate those channels with $\text{RC_QPCH_HASH_IND}_r$ equal to '0' from the CDMA channel list and use the hash algorithm specified in 2.6.7.1 and the number of channels whose $\text{RC_QPCH_HASH_IND}_r$ is equal to '1' in the *Extended CDMA Channel List Message* to determine the CDMA Channel (Frequency Assignment) for its Paging Channel.

- If $RC_{QPCH_SEL_INCL_r}$ is equal to ‘1’ and the mobile station is not capable of RC greater than 2 and not capable of supporting Quick Paging Channel, the mobile station shall use the hash algorithm specified in 2.6.7.1 and the number of channels in the *Extended CDMA Channel List Message* to determine the CDMA Channel (Frequency Assignment) for its Paging Channel.
- If $RC_{QPCH_SEL_INCL_r}$ is equal to ‘0’, the mobile station shall use the hash algorithm specified in 2.6.7.1 and the number of channels in the *Extended CDMA Channel List Message* to determine the CDMA Channel (Frequency Assignment) for its Paging Channel.

If the CDMA Frequency Assignment has changed (the computed CDMA Channel is different from $CDMACH_s$), the mobile station shall perform the following actions:

- If the stored configuration parameters is not current (see 2.6.2.2) for the corresponding base station and frequency assignment, the mobile station shall perform the following actions:
 - Set $CDMACH_s$ to the new CDMA Channel.
 - Set $PAGE_CHAN_s$ to ‘1’.
 - Set $PAGECH_s$ to the Primary Paging Channel.
 - Set $CONFIG_MSG_SEQ_s$, $SYS_PAR_MSG_SEQ_s$, $NGHBR_LST_MSG_SEQ_s$, $CHAN_LST_MSG_SEQ_s$, $EXT_CHAN_LST_MSG_SEQ_s$, $EXT_NGHBR_LST_MSG_SEQ_s$, $GEN_NGHBR_LST_MSG_SEQ_s$, $EXT_SYS_PAR_MSG_SEQ_s$, $GLOB_SERV_REDIR_MSG_SEQ_s$, $EXT_GLOB_SERV_REDIR_MSG_SEQ_s$, $USER_ZONE_IDMSG_SEQ_s$, $PRI_NGHBR_LST_MSG_SEQ_s$, and $ACC_MSG_SEQ_s$ to NULL.
- Tune to the new CDMA Channel.
- Otherwise, the mobile station shall perform the following actions:
 - Set $CDMACH_s$ to the new CDMA Channel.
 - The mobile station shall use the hash algorithm specified in 2.6.7.1 to select a new Paging Channel number in the range 1 to $PAGE_CHAN_s$, where $PAGE_CHAN_s$ is the value stored for the Paging Channel whose stored information is current. The mobile station shall store the new Paging Channel number as $PAGECH_s$.
 - Tune to the new CDMA Channel and shall begin monitoring the new Paging Channel.

2.6.2.2.12.2 Extended CDMA Channel List Message on Primary Broadcast Control Channel

Whenever the *Extended CDMA Channel List Message* is received on the Primary Broadcast Control Channel, the mobile station shall compare the configuration message sequence number, $CONFIG_MSG_SEQ_r$, to that stored in $CONFIG_MSG_SEQ_s$. If the comparison results in a match, the mobile station may ignore the message. If the comparison results in a mismatch, the mobile station shall process the remaining fields in the message as follows:

1 The mobile station shall store the following parameters:

- 2 • Configuration message sequence number
 3 (CONFIG_MSG_SEQ_S = CONFIG_MSG_SEQ_r,
 4 EXT_CHAN_LST_MSG_SEQ_S = CONFIG_MSG_SEQ_r).

5 To determine the CDMA Channel (Frequency Assignment) for its Primary Broadcast Control
 6 Channel, the mobile station shall first select a subset of CDMA channels from the *Extended*
 7 *CDMA Channel List Message* that will be used for channel hashing. The attributes for
 8 channel selection are support for RC greater than 2, Quick Paging Channel and transmit
 9 diversity. The mobile station shall first select the entire CDMA channel list for channel
 10 hashing. The mobile station shall then select the first subset as follows:

- 11 • If TD_SEL_INCL_r is equal to '1', the mobile station shall perform the following:
 - 12 – If the mobile station is capable of supporting the transmit diversity mode
 13 specified by TD_MODE_r, the mobile station shall select those CDMA channels
 14 that have TD_HASH_IND_r set to '1' from the CDMA channel list for the first
 15 subset.
 - 16 – If the mobile station is not capable of supporting the transmit diversity mode
 17 specified by TD_MODE_r, the mobile station shall select those CDMA channels
 18 that have TD_HASH_IND_r set to '0' from the CDMA channel list for the first
 19 subset. If this selected subset is empty, the mobile station shall not perform the
 20 remaining procedures in this section.
- 21 • If TD_SEL_INCL_r is equal to '0', the mobile station shall select the entire list for the
 22 first subset.

23 From this first subset, the mobile station shall select the final subset as follows:

- 24 • If RC_QPCH_SEL_INCL_r is equal to '1' and the mobile station is capable of RC
 25 greater than 2 or capable of supporting QPCH, the mobile station shall select those
 26 CDMA channels with RC_QPCH_HASH_IND_r set to '1' for the final subset for CDMA
 27 channel hashing. If this list is empty, the mobile station shall use the first subset as
 28 the final subset for CDMA channel hashing.
- 29 • Otherwise, the mobile station shall use the first subset as the final subset for CDMA
 30 channel hashing.

31 After the final subset has been selected, the mobile station shall use the hash algorithm
 32 specified in 2.6.7.1 with the number of channels in the final subset of the CDMA channel
 33 list to determine the CDMA Channel (Frequency Assignment) for its Primary Broadcast
 34 Control Channel.

35 If the CDMA Frequency Assignment has changed (the computed CDMA Channel is different
 36 from CDMACH_S), the mobile station shall perform the following:

- 37 • Set CDMACH_S to the new CDMA Channel.

- Set CONFIG_MSG_SEQ_s, A41_SYS_PAR_MSG_SEQ_s, MC_RR_PAR_MSG_SEQ_s, UNI_NGHBR_LST_MSG_SEQ_s, EXT_CHAN_LST_MSG_SEQ_s, USER_ZONE_ID_MSG_SEQ_s, and PRI_NGHBR_LST_MSG_SEQ_s and ACC_MSG_SEQ_s to NULL
- If the mobile station is operating in the Spreading Rate 1:
 - If the assigned CDMA channel supports transmit diversity, the mobile station shall set the following fields corresponding to the assigned CDMA channel:
 - + SR1_TD_POWER_LEVEL_s = TD_POWER_LEVEL_r.
 - + SR1_TD_MODE_s = TD_MODE_r.
 - + BRAT_s = SR1_BRAT_TD_s.
 - + BCCH_CODE_RATE_s = SR1_CRAT_TD_s.
 - + BCCH_s = BCCH_CODE_CHAN_TD_s.
 - Otherwise, the mobile station shall set the following fields corresponding to the assigned CDMA channel:
 - + BRAT_s = SR1_BRAT_NON_TD_s,
 - + BCCH_CODE_RATE_s = SR1_CRAT_NON_TD_s,
 - + BCCH_s = BCCH_CODE_CHAN_NON_TD_s,
- Tune to the new CDMA Channel

2.6.2.2.13 ANSI-41 System Parameters Message

Whenever an *ANSI-41 System Parameters Message* is received, the configuration message sequence number, CONFIG_MSG_SEQ_r, shall be compared to that stored in A41_SYS_PAR_MSG_SEQ_s. If the comparison results in a match, the mobile station may ignore the message. If the comparison results in a mismatch, then the mobile station shall process the remaining fields in the message as described in 2.6.2.2.13.1, 2.6.2.2.13.2, 2.6.2.2.13.3, and 2.6.2.2.13.4.

If REG_PRD is not within the valid range specified in 3.7.2.3.2.[31](#), then the mobile station shall ignore the *ANSI-41 System Parameters Message* that contains it.

2.6.2.2.13.1 Stored Parameters

The mobile station shall store the following parameters:

- Configuration message sequence number (CONFIG_MSG_SEQ_s = CONFIG_MSG_SEQ_r, A41_SYS_PAR_MSG_SEQ_s = CONFIG_MSG_SEQ_r)
- Home registration indicator (HOME_REG_s = HOME_REG_r)
- SID roamer registration indicator (FOR_SID_REG_s = FOR_SID_REG_r)
- NID roamer registration indicator (FOR_NID_REG_s = FOR_NID_REG_r)

- 1 • Power-up registration indicator ($\text{POWER_UP_REG}_S = \text{POWER_UP_REG}_R$)
- 2 • Power-down registration indicator ($\text{POWER_DOWN_REG}_S = \text{POWER_DOWN_REG}_R$)
- 3 • Parameter-change registration indicator ($\text{PARAMETER_REG}_S = \text{PARAMETER_REG}_R$)
- 4 • Preferred Enhanced Access Channel MSID type
($\text{PREF_MSID_TYPE}_S = \text{PREF_MSID_TYPE}_R$)
- 5
 - 6 • The mobile station shall set its operational IMSI, IMSI_O , as follows:
 - 7 – If $\text{IMSI_T_SUPPORTED}_R$ is equal to '0', the mobile station shall set IMSI_O to IMSI_M_p .
 - 8 – If $\text{IMSI_T_SUPPORTED}_R$ is equal to '1' and the mobile station's IMSI_T_p has been programmed, the mobile station shall set IMSI_O to IMSI_T_p .
 - 9 – If $\text{IMSI_T_SUPPORTED}_R$ is equal to '1' and the mobile station's IMSI_T_p has not been programmed, the mobile station shall set IMSI_O to IMSI_M_p .
 - 10 – If IMSI_O has been changed, the mobile station shall set [A41-SYSMC RR_PAR_MSG_SEQ_S](#) and [EXT_CHAN_LST_MSG_SEQ_S](#) to [NULL](#) [and set NUM_FCCCH_S to '1'](#) and [FCCCH ID_S to '1'](#).
- 11
 - 12 • If OTHER_INFO_INCL_R is set to '1', the mobile station shall store:
 - 13 – Base station identification ($\text{BASE_ID}_S = \text{BASE_ID}_R$)
 - 14 – If $\text{MCC}_R = '1111111111'$ and $\text{IMSI_11_12}_R = '11111111'$, the mobile station shall set the IMSI_O to IMSI_M_p and store:
 - 15 + Mobile Country Code ($\text{MCC}_S = \text{MCC}_M_p$) and
 - 16 + IMSI 11th and 12th digits ($\text{IMSI_11_12}_S = \text{IMSI_M_11_12}_p$);
 - 17 – Otherwise, the mobile station shall store:
 - 18 + Mobile Country Code ($\text{MCC}_S = \text{MCC}_R$) and
 - 19 + IMSI 11th and 12th digits ($\text{IMSI_11_12}_S = \text{IMSI_11_12}_R$).
 - 20 – Broadcast GPS assist indicator ($\text{BROADCAST_GPS_ASST}_S = \text{BROADCAST_GPS_ASST}_R$)
 - 21 – Signaling encryption supported indicator ($\text{SIG_ENCRYPT_SUP}_S = \text{SIG_ENCRYPT_SUP}_R$)
 - 22 – [Store encryption key indicator \(STORE_KEY_S = STORE_KEY_R\)](#)
 - 23 – [Concurrent services supported indicator \(CS_SUPPORTED_S = CS_SUPPORTED_R\)](#)
 - 24 • If IMSI_O is set to the IMSI_M , the mobile station shall set:
 - 25 – IMSI_O_S_S to IMSI_M_S_p (i.e., IMSI_O_S1_S to IMSI_M_S1_p and IMSI_O_S2_S to IMSI_M_S2_p)
 - 26 – IMSI_O_11_12_S to IMSI_M_11_12_p
 - 27 – MCC_O_S to MCC_M_p

- IMSI_O_ADDR_NUM_s to IMSI_M_ADDR_NUM_p
- If IMSI_O is set to the IMSI_T, the mobile station shall set:
 - IMSI_O_S_s to IMSI_T_S_p (i.e., IMSI_O_S1_s to IMSI_T_S1_p and IMSI_O_S2_s to IMSI_T_S2_p).
 - IMSI_O_11_12_s to IMSI_T_11_12_p
 - MCC_O_s to MCC_T_p
 - IMSI_O_ADDR_NUM_s to IMSI_T_ADDR_NUM_p
- Delete foreign TMSI (DELETE_FOR_TMSI_s = DELETE_FOR_TMSI_r)
- Use TMSI (USE_TMSI_s = USE_TMSI_r)
- TMSI zone length (TMSI_ZONE_LEN_s = TMSI_ZONE_LEN_r)
- TMSI zone number (TMSI_ZONE_s = TMSI_ZONE_r)
- Maximum number of alternative service options (MAX_NUM_ALT_SO_s = MAX_NUM_ALT_SO_r) ~~if included in the message; otherwise, MAX_NUM_ALT_SO_s = 000~~.
- The mobile station shall set all bits of TMSI_CODE_{s-p} to '1' if all of the following conditions are met:
 - The bits of TMSI_CODE_{s-p} are not all equal to '1',
 - DELETE_FOR_TMSI_s is equal to '1', and
 - ASSIGNING_TMSI_ZONE_LEN_{s-p} is not equal to TMSI_ZONE_LEN_s, or the least significant ASSIGNING_TMSI_ZONE_LEN_{s-p} octets of ASSIGNING_TMSI_ZONE_{s-p} are not equal to TMSI_ZONE_s.

If the mobile station supports packet data service, the mobile station shall store the packet data services zone identifier (PACKET_ZONE_ID_s = PACKET_ZONE_ID_r); otherwise, the mobile station shall set PACKET_ZONE_ID_s to '00000000'.

If the mobile station supports the *Device Information Message* on the r-csch, the mobile station shall store:

- Autonomous message supported indicator (AUTO_MSG_SUPPORTED_s = AUTO_MSG_SUPPORTED_r)

If AUTO_MSG_SUPPORTED_r is equal to '1' and the mobile station supports the *Device Information Message* on the r-csch, the mobile station shall store:

- Autonomous message interval (AUTO_MSG_INTERVAL_s = AUTO_MSG_INTERVAL_r)

The mobile station shall store concurrent service supported indicator (CS_SUPPORTED_s = CS_SUPPORTED_r).

The mobile station shall store mobile station initiated position location determination supported indicator (MS_INIT_POS_LOC_SUP_IND_s = MS_INIT_POS_LOC_SUP_IND_r).

The mobile station shall also store the following parameters if the mobile station is not in

- 1 the *Origination Attempt Substate* or *Page Response Substate*:
- 2 • System identification ($SID_s = SID_r$)
- 3 • Network identification ($NID_s = NID_r$)
- 4 • Registration zone ($REG_ZONE_s = REG_ZONE_r$)
- 5 • Number of registration zones to be retained ($TOTAL_ZONES_s = TOTAL_ZONES_r$)
- 6 • Zone timer length ($ZONE_TIMER_s = ZONE_TIMER_r$)
- 7 • Multiple SID storage indicator ($MULT_SIDS_s = MULT_SIDS_r$)
- 8 • Multiple NID storage indicator ($MULT_NIDS_s = MULT_NIDS_r$)
- 9 • Registration period ($REG_PRD_s = REG_PRD_r$)
- 10 • If $DIST_REG_INCL$ is equal to ‘1’, the mobile station shall store:
- 11 – Registration distance ($REG_DIST_s = REG_DIST_r$)
- 12 • If $DIST_REG_INCL$ is equal to ‘0’, then the mobile station shall set REG_DIST equal
- 13 to ‘0000000000’.

14 The mobile station shall ignore any fields at the end of the *ANSI-41 System Parameters*
 15 *Message* that are not defined according to the protocol revision level ($MOB_P_REV_p$ of the
 16 current band class) being used by the mobile station.

17 2.6.2.2.13.2 Roaming Status

18 The mobile station shall determine the roaming status for the mobile station (see 2.6.5.3).
 19 The mobile station should indicate to the user whether the mobile station is roaming.

20 2.6.2.2.13.3 Registration

21 The mobile station shall update stored variables and perform other registration procedures
 22 as specified in 2.6.5.5.2.2.

23 2.6.2.2.13.4 PACA Disable for SID Change

24 If $PACA_s$ is equal to enabled, and SID_s is not equal to $PACA_SID_s$, the mobile station shall
 25 set $PACA_s$ to disabled and $PACA_CANCEL$ to ‘0’, shall disable the PACA state timer, and
 26 should indicate to the user that the PACA call has been canceled

27 2.6.2.2.14 MC-RR Parameters Message

28 Whenever an *MC-RR Parameters Message* is received, the configuration message sequence
 29 number, $CONFIG_MSG_SEQ_r$, shall be compared to that stored in $MC_RR_PAR_MSG_SEQ_s$.
 30 If the comparison results in a match, the mobile station may ignore the message. If the
 31 comparison results in a mismatch, then the mobile station shall process the remaining
 32 fields in the message as described in 2.6.2.2.14.1, 2.6.2.2.14.2, and 2.6.2.2.14.3.

33 If the protocol revision level supported by the mobile station ($MOB_P_REV_p$) is less than the
 34 minimum protocol revision level supported by the base station ($MIN_P_REV_r$), the mobile
 35 station shall enter the *System Determination Substate* of the *Mobile Station Initialization State*

1 with a protocol mismatch indication (see 2.6.1.1).

2 If BASE LAT, BASE LONG, or PWR REP THRESH ~~is-are~~ not within the valid ranges
 3 specified in 3.7.2.3.2.31, then the mobile station shall ignore the *MC-RR Parameters*
 4 *Message* that contains them.

5 If the mobile station supports Spreading Rate 3 on the common channel and SR3_INCL_s is
 6 equal to '1', the mobile station shall set:

- 7 • BRAT_s = SR3_BRAT_r,
- 8 • BCCH_s = SR3_BCCH_CODE_CHAN_r;
- 9 • BCCH_CODE_RATE_s = 1/3;
- 10 • SR3_PRIMARY_PILOT_s = SR3_PRIMARY_PILOT_r;
- 11 • SR3_PILOT_POWER1_s = SR3_PILOT_POWER1_r;
- 12 • SR3_PILOT_POWER2_s = SR3_PILOT_POWER2_r;
- 13 • If SR3_CENTER_FREQ_INCL_r is equal to '1', POTENTIAL_CDMACH_s =
 14 SR3_CENTER_FREQ_r.

15 If POTENTIAL_CDMACH_s is different from CDMACH_s, the mobile station shall set
 16 CDMACH_s = POTENTIAL_CDMACH_s and then tune to the CDMA Channel (CDMACH_s).

17 2.6.2.2.14.1 Stored Parameters

18 The mobile station shall store the following parameters:

- 19 • Configuration message sequence number
 (CONFIG_MSG_SEQ_s = CONFIG_MSG_SEQ_r,
 MC_RR_PAR_MSG_SEQ_s = CONFIG_MSG_SEQ_r)
- 20 • Base station identification (BASE_ID_s = BASE_ID_r)
- 21 • Protocol revision level (P_REV_s = P_REV_r)
- 22 • Protocol revision level currently in use (P_REV_IN_USE_s = the lesser value of
 P_REV_s and MOB_P_REV_r of the current band class)
- 23 • Minimum protocol revision level (MIN_P_REV_s = MIN_P_REV_r).
 24
- 25 • Search window size for the Active Set and Candidate Set
 (SRCH_WIN_A_s = SRCH_WIN_A_r)
- 26 • Search window size for the Remaining Set (SRCH_WIN_R_s = SRCH_WIN_R_r)
- 27 • Pilot detection threshold (T_ADD_s = T_ADD_r)
- 28 • Pilot drop threshold (T_DROP_s = T_DROP_r)
- 29 • Active Set versus Candidate Set comparison threshold (T_COMP_s = T_COMP_r)
- 30 • Drop timer value (T_TDROPO_s = T_TDROPO_r)

- 1 • Maximum age for retention of Neighbor Set members
(NGHBR_MAX_AGE_S = NGHBR_MAX_AGE_R)
- 2
- 3 • Slope of the handoff add/drop criterion (SOFT_SLOPE_S = SOFT_SLOPE_R) **if included in the message; otherwise, SOFT_SLOPE_S = '000000'.**
- 4
- 5 • Intercept of the handoff add criterion (ADD_INTERCEPT_S = ADD_INTERCEPT_R)
- 6 • Intercept of the handoff drop criterion (DROP_INTERCEPT_S = DROP_INTERCEPT_R)
- 7 • If ENC_SUPPORTED_R is equal to '1', the mobile station shall store:
 - 8 – Signaling encryption supported indicator (SIG_ENCRYPT_SUP_S = SIG_ENCRYPT_SUP_R)
 - 9
 - 10 – User information encryption supported indicator (UI_ENCRYPT_SUP_S = UI_ENCRYPT_SUP_R)
 - 11
 - 12 – **Store encryption key indicator (STORE_KEY_S = STORE_KEY_R)**

13 If P_REV_IN_USE_S has been changed, the mobile station shall set ACC_MSG_SEQ_S,
14 CURR_ACC_MSG_SEQ, A41_SYS_PAR_MSG_SEQ_S, UNI_NGHBR_LST_MSG_SEQ_S, and
15 EXT_GLOB_SERV_REDIR_MSG_SEQ_S to NULL.

16 If CCH_INFO_INCL_R is equal to '1', the mobile station shall store:

- 17 • If MCC_R = '1111111111' and IMSI_11_12_R = '1111111', the mobile station shall set
18 the IMSI_O to IMSI_M_P and store:
 - 19 – Mobile Country Code (MCC_S = MCC_M_P) and
 - 20 – IMSI 11th and 12th digits (IMSI_11_12_S = IMSI_M_11_12_P);
- 21 • Otherwise, the mobile station shall store:
 - 22 – Mobile Country Code (MCC_S = MCC_R) and
 - 23 – IMSI 11th and 12th digits (IMSI_11_12_S = IMSI_11_12_R).
- 24 • **If IMSI_O has been changed, the mobile station shall set EXT_CHAN_LST_MSG_SEQ_S to NULL, and set NUM_FCCCH_S to '1' and FCCCH_ID_S to '1'.**

- 27 • *Extended Global Service Redirection Message* sent
(EXT_GLOBAL_REDIRECT_S = EXT_GLOBAL_REDIRECT_R) if included; otherwise,
28 EXT_GLOBAL_REDIRECT_S = '0'
- 29
- 30 • *User Zone Identification Message* sent
(USER_ZONE_ID_S = USER_ZONE_ID_R) if included; otherwise, USER_ZONE_ID_S = '0'
- 31
- 32 • *Private Neighbor List Message* sent
(PRI_NGHBR_LST_S = PRI_NGHBR_LST_R) if included; otherwise,
33 PRI_NGHBR_LST_S = '0'
- 34
- 35 • *ANSI-41 RAND Message* sent
(SENDING_RAND_S = SENDING_RAND_R) if included; otherwise,
36 SENDING_RAND_S = '0'
- 37

- Maximum slot cycle index ($\text{MAX_SLOT_CYCLE_INDEX}_s = \text{MAX_SLOT_CYCLE_INDEX}_r$)
- Power control reporting threshold ($\text{PWR_REP_THRESH}_s = \text{PWR_REP_THRESH}_r$)
- Power control reporting frame count ($\text{PWR_REP_FRAMES}_s = \text{PWR_REP_FRAMES}_r$)
- Threshold report mode indicator ($\text{PWR_THRESH_ENABLE}_s = \text{PWR_THRESH_ENABLE}_r$)
- Periodic report mode indicator ($\text{PWR_PERIOD_ENABLE}_s = \text{PWR_PERIOD_ENABLE}_r$).
- Power report delay ($\text{PWR_REP_DELAY}_s = \text{PWR_REP_DELAY}_r$)
- System reselection indicator ($\text{RESELECT_INCLUDED}_s = \text{RESELECT_INCLUDED}_r$).
 - Base station latitude ($\text{BASE_LAT}_s = \text{BASE_LAT}_r$)
 - Base station longitude ($\text{BASE_LONG}_s = \text{BASE_LONG}_r$)
- Pilot reporting indicator ($\text{PILOT_REPORT}_s = \text{PILOT_REPORT}_r$)
- Short Data Burst supported indicator ($\text{SDB_SUPPORTED}_s = \text{SDB_SUPPORTED}_r$)
- Broadcast GPS Assist Indicator ($\text{BROADCAST_GPS_ASST}_s = \text{BROADCAST_GPS_ASST}_r$)
- Nominal reverse traffic channel output power offset relative to Reverse Pilot Channel power ($\text{RLGAIN_TRAFFIC_PILOT}_s = \text{RLGAIN_TRAFFIC_PILOT}_r$)
- If NUM_FCCCH_r is not equal to '0':
 - Number of the Forward Common Control Channels ($\text{NUM_FCCCH}_s = \text{NUM_FCCCH}_r$)
 - Data rate for the Forward Common Control Channels ($\text{FCCCH_RATE}_s = \text{FCCCH_RATE}_r$)
 - Code rate for the Forward Common Control Channels ($\text{FCCCH_CODE_RATE}_s = \text{FCCCH_CODE_RATE}_r$)
 - For $i = 0$ to $\text{NUM_FCCCH}_r - 1$, store the channel code index for each Forward Common Control Channel ($\text{FCCCH_CODE_CHAN}_s[i] = \text{FCCCH_CODE_CHAN}_r$)
- Number of Forward Common Control Channels ($\text{NUM_FCCCH}_s = \text{NUM_FCCCH}_r$)
- Data rate for the Forward Common Control Channels ($\text{FCCCH_RATE}_s = \text{FCCCH_RATE}_r$)
- Code rate for the Forward Common Control Channels ($\text{FCCCH_CODE_RATE}_s = \text{FCCCH_CODE_RATE}_r$)
- If NUM_FCCCH_r is not equal to '0', then for $i = 0$ to $\text{NUM_FCCCH}_r - 1$, store the channel code index for each Forward Common Control Channel ($\text{FCCCH_CODE_CHAN}_s[i] = \text{FCCCH_CODE_CHAN}_r$)
- Broadcast index ($\text{BCAST_INDEX}_s = \text{BCAST_INDEX}_r$)

- If NUM_BCCH_BCAST_r is greater than '000', i occurrences of the following fields, where i ranges from 1 to NUM_BCCH_BCAST_r:
 - Set the index number of the Broadcast Control Channel Number (BCN) to i+1
 - BCCH walsh code index (BCCH_CODE_CHAN[BCN_i]_s = BCCH_CODE_CHAN[i]_r)
 - BCCH data rate (BRAT[BCN_i]_s = BRAT[i]_r)
 - BCCH code rate (BCCH_CODE_RATE[BCN_i]_s = BCCH_CODE_RATE[i]_r)
 - Set the index number of the Broadcast Control Channel (BCN)[i] to i+1
- Sync ID supported indicator (USE_SYNC_ID_s = USE_SYNC_ID_r)
- Pilot information request supported indicator (PILOT_INFO_REQ_SUPPORTED_s = PILOT_INFO_REQ_SUPPORTED_r).
- Access entry handoff in order and message processing operation indicator (ACC_ENT_HO_ORDER_s = ACC_ENT_HO_ORDER_r).
- If REV_PWR_CNTL_DELAY_INCL is equal to '1', reverse power control delay (REV_PWR_CNTL_DELAY_s = REV_PWR_CNTL_DELAY_r)
- Permission indicator for the mobile station to request QoS settings in the *Origination Message*, *Origination Continuation Message*, or *Enhanced Origination Message* (MOB_QOS_s = MOB_QOS_r)
- If RESELECT_INCLUDED_s is equal to '1', the mobile station shall store:
 - Pilot power threshold (EC_THRESH_s = EC_THRESH_r)
 - Pilot E_c/I_o threshold (EC_IO_THRESH_s = EC_IO_THRESH_r)
- Access handoff permitted indicator (ACCESS_HO_s = ACCESS_HO_r)
- Access probe handoff permitted indicator (ACCESS_PROBE_HO_s = ACCESS_PROBE_HO_r)
- If ACCESS_PROBE_HO_s is equal to '1', access handoff list update permitted indicator (ACC_HO_LIST_UPD_s = ACC_HO_LIST_UPD_r)
- Maximum number of times that the mobile station is permitted to perform an access probe handoff (MAX_NUM_PROBE_HO_s = MAX_NUM_PROBE_HO_r)
- Access handoff permitted for message response indicator (ACCESS_HO_MSG_RSP_s = ACCESS_HO_MSG_RSP_r)
- Access probe handoff permitted for other messages indicator (ACC_PROBE_HO_OTHER_MSG_s = ACC_PROBE_HO_OTHER_MSG_r)
- If USER_ZONE_ID_s is equal to '0', then the mobile station shall perform the following:
 - Set USER_ZONE_ID_MSG_SEQ_s to CONFIG_MSG_SEQ_s.
 - Set the UZID field of the UZ_REC to '0000000000000000' for all entries.
 - Set the UZ_REV field of the UZ_REC to '0000' for all entries.

- 1 – Set the TEMP_SUB field of the UZ_REC to ‘0’ for all entries.
- 2 • If USER_ZONE_ID_s is equal to ‘1’ and the mobile station does not support Tiered Services, then the mobile station shall set USER_ZONE_ID_MSG_SEQ_s to CONFIG_MSG_SEQ_s.
- 3 • If PRI_NGHBR_LIST_s is equal to ‘0’, then the mobile station shall set PRI_NGHBR_LIST_MSG_SEQ_s to CONFIG_MSG_SEQ_s.
- 4 • If PRI_NGHBR_LIST_s is equal to ‘1’ and the mobile station does not support Tiered Services, then the mobile station shall set PRI_NGHBR_LIST_MSG_SEQ_s to CONFIG_MSG_SEQ_s.
- 5 • If EXT GLOBAL REDIRECT_s is equal to ‘0’, then the mobile station shall set EXT GLOB SERV REDIR MSG SEQ_s to CONFIG MSG SEQ_s.
- 6 • If SENDING RAND_s is equal to ‘1’ and the mobile station is not in the *Origination Attempt Substate* or *Page Response Substate*, then the mobile station shall perform the following:set AUTH_s to ‘01’. Otherwise, the mobile station shall set AUTH_s to ‘00’.
 - 7 – If SENDING RAND_s is equal to ‘1’, the mobile station shall set AUTH_s to ‘01’;
otherwise, the mobile station shall set AUTH_s to ‘00’.
- 8 • If the mobile station is not in the Origination Attempt Substate or Page Response Substate, then the mobile station shall store the following:
 - 9 – Base station latitude (BASE LAT_s = BASE LAT_r)
 - 10 – Base station longitude (BASE LONG_s = BASE LONG_r)

22 If CCH_INFO_INCL_r is equal to ‘1’ and the mobile station supports the Quick Paging
23 Channel operation:

- 24 • The mobile station shall set QPCH_SUPPORTED_s to QPCH_SUPPORTED_r.
- 25 • If QPCH_SUPPORTED_r = ‘1’:
 - 26 – The mobile station shall set QPCH_RATE_s to QPCH_RATE_r.
 - 27 – If the mobile station is monitoring the Primary Broadcast Control Channel in
28 Spreading Rate 1 and the number of Quick Paging Channels specified in the
29 received message (NUM_QPCH_r) is different from NUM_QPCH_s, the mobile
30 station shall use the hash algorithm specified in 2.6.7.1 to select a new Quick
31 Paging Channel number in the range 1 to NUM_QPCH_r. The mobile station shall
32 store the new Quick Paging Channel number as QPAGECH_s and as
33 ASSIGNED_QPAGECH_s. The mobile station shall then set NUM_QPCH_s to
34 NUM_QPCH_r.
 - 35 – If the mobile station is monitoring the Primary Broadcast Control Channel in
36 Spreading Rate 3 and the number of Quick Paging Channels specified in the
37 received message (NUM_QPCH_r) is different from NUM_QPCH_s, the mobile
38 station shall perform the following:

- + The mobile station shall use the hash algorithm specified in 2.6.7.1 to select a new Quick Paging Channel number in the range 1 to NUM_QPCH_r.
- + The mobile station shall store the new Quick Paging Channel number as QPAGECH_s and as ASSIGNED_QPAGECH_s.
- + For i = 0 to NUM_QPCH_s - 1, store the channel code index for each Quick Paging Channel (QPCH_CODE_CHAN_s[i] = QPCH_CODE_CHAN_r).
- The mobile station shall set QPCH_POWER_LEVEL_PAGE_s to QPCH_POWER_LEVEL_PAGE_r.
- The mobile station shall set QPCH_CCI_SUPPORTED_s to QPCH_CCI_SUPPORTED_r.
- If QPCH_CCI_SUPPORTED_r = '1', the mobile station shall set QPCH_POWER_LEVEL_CONFIG_s to QPCH_POWER_LEVEL_CONFIG_r.
- The mobile station shall set QPCH_BI_SUPPORTED_s to QPCH_BI_SUPPORTED_r.
- If QPCH_BI_SUPPORTED_r = '1', the mobile station shall set QPCH_POWER_LEVEL_BCAST_s to QPCH_POWER_LEVEL_BCAST_r.

The mobile station shall ignore any fields at the end of the *MC-RR Parameters Message* that are not defined according to the protocol revision level (MOB_P_REV_p of the current band class) being used by the mobile station.

2.6.2.2.14.2 Slot Cycle Index

The mobile station shall set SLOT_CYCLE_INDEX_s to the smaller of: the preferred slot cycle index SLOT_CYCLE_INDEX_p and the maximum slot cycle index MAX_SLOT_CYCLE_INDEX_s. If the mobile station is operating in the slotted mode, it shall set its slot cycle length as described in 2.6.2.1.1.3.

2.6.2.2.14.3 Forward Common Control Channel Assignment Change

If the number of Forward Common Control Channels specified in the *MC-RR Parameters Message* (NUM_FCCCH_r) is not equal to '0' and is different from NUM_FCCCH_s, the mobile station shall use the hash algorithm specified in 2.6.7.1 to select a new Forward Common Control Channel number in the range 1 to NUM_FCCCH_r and shall store this value as FCCCH_ID_s. If NUM_FCCCH_r is not equal to '0'-, The mobile station shall store the FCCCH rate (FCCCH RATE_s = FCCCH RATE_r), the FCCCH code rate (FCCCH CODE RATE_s = FCCCH_CODE_RATE_r), and store FCCCH_CODE_CHAN_r of the corresponding Forward Common Control Channel as FCCCH_CODE_RATE_s and FCCCH_CODE_CHAN_s. The mobile station shall then set NUM_FCCCH_s to NUM_FCCCH_r.

The mobile station shall set ACC_MSG_SEQ_s to NULL.

2.6.2.2.15 Enhanced Access Parameters Message

Whenever an *Enhanced Access Parameters Message* is received on the f-csch, the sequence number, ACC_MSG_SEQ_r, shall be compared to ACC_MSG_SEQ_s. If the comparison results in a match, the mobile station may ignore the message. If the comparison results in a mismatch, then the mobile station shall process the remaining fields in the message as

1 follows:

2 If PROBE_PN_RAN, MAX_REQ_SEQ, or MAX_RSP_SEQ are not within the valid ranges
 3 specified in 3.7.2.3.2.2, then the mobile station shall ignore the *Enhanced Access*
 4 *Parameters Message* that contains them.

5 The mobile station shall store the following parameters:

- 6 • *Enhanced Access Parameters Message* sequence number
 7 (ACC_MSG_SEQ_S = ACC_MSG_SEQ_r)
- 8 • Persistence related parameters:
 - 9 – If PSIST_PARMS_INCL is equal to '1', store the following:
 - 10 + Persistence parameter number according to the following rule: If the mobile
 11 station's access overload class is in the range 0-9 inclusive, set PSIST_S equal
 12 to PSIST(0-9)_EACH_r; otherwise set PSIST_S equal to PSIST(n)_EACH_r, where
 13 n is equal to the mobile station access overload class.
 - 14 + Persistence modifier for Enhanced Access Channel attempts for registrations
 15 which are not responses to the *Registration Request Order* (REG_PSIST_S = REG_PSIST_EACH_r).
 - 16 + Persistence modifier for Enhanced Access Channel attempts for message
 17 transmissions (MSG_PSIST_S = MSG_PSIST_EACH_r).
 - 18 + Persistence modifier for emergency calls by the mobile stations in access
 19 overload classes 0 to 9 (PSIST_EMG_S = PSIST_EMG_r).
 - 20 – If PSIST_PARMS_INCL_r is equal to '0', store the following:
 - 21 + Set PSIST_S to '0'.
 - 22 + Persistence modifier for emergency calls by a mobile station in access
 23 overload classes 0 to 9 (PSIST_EMG_S = '0').
 - 24 + Persistence modifier for Enhanced Access Channel attempts for message
 25 transmissions (MSG_PSIST_S = '0').
 - 26 + Persistence modifier for Enhanced Access Channel attempts for registrations
 27 which are not responses to the *Registration Request Order* (REG_PSIST_S = '0').
- 28 • The mobile station shall store the Access Control based on Call Type (ACCT) information as follows:
 - 29 – Set ACCT SO LIST to NULL.
 - 30 – Set ACCT SO GRP LIST to NULL.
 - 31 – If ACCT INCL_r is equal to '1' and ACCOLC_p is in the range 0 to 9, then the mobile station shall perform the following:
 - 32 + Set ACCT INCL EMG_S to ACCT INCL EMG_r.
 - 33 + If ACCT SO INCL_r is equal to '1', then for each ACCT SO_r included in this message:

- 1 o If ACCT_AOC_BITMAP_INCL_r is equal to '0', or if
 2 ACCT_AOC_BITMAP_INCL_r is equal to '1' and the bit in the associated
 3 ACCT_AOC_BITMAP1_r corresponding to the mobile station's ACCOLC_p
 4 (see Table 3.7.2.3.2.2-1) is equal to '1', then add ACCT_SO_r to
 5 ACCT_SO_LIST.
 6 + If ACCT_SO_GRP_INCL_r is equal to '1', then for each ACCT_SO_GRP_r
 7 included in this message:
 8 o If ACCT_AOC_BITMAP_INCL_r is equal to '0', or if
 9 ACCT_AOC_BITMAP_INCL_r is equal to '1' and the bit in the associated
 10 ACCT_AOC_BITMAP2_r corresponding to the mobile station's ACCOLC_p
 11 (see Table 3.7.2.3.2.2-1) is equal to '1', then add ACCT_SO_GRP_r to
 12 ACCT_SO_GRP_LIST.

- 13
- 14 • Link Access Control related parameters:
 - 15 – Acknowledgment timeout (EACH_ACC_TMO_s = ACC_TMO_r)
 - 16 ~~Time randomization for Enhanced Access Channel probes~~
 17 ~~(PROBE_PN_RAN_s = PROBE_PN_RAN_r)~~
 - 18 – Maximum number of probe sequences for an Enhanced Access Channel request
 19 (MAX_REQ_SEQ_s = MAX_REQ_SEQ_r)
 - 20 – Maximum number of probe sequences for an Enhanced Access Channel
 21 response (MAX_RSP_SEQ_s = MAX_RSP_SEQ_r)
 - 22 • Mode Selection Table:

23 NUM_MODE_SELECTION_ENTRIES_s = (NUM_MODE_SELECTION_ENTRIES_r + 1)

24 For i = 1 to NUM_MODE_SELECTION_ENTRIES_s
 25 NUM_MODE_SELECTION_ENTRIES
 +1:

 - 26 – MODE_SELECTION_s[i].ACCESS_MODE = ACCESS_MODE field of the ith
 27 occurrence of the record
 - 28 – MODE_SELECTION_s[i].MIN_DURATION = ACCESS_MODE_MIN_DURATION field
 29 of the ith occurrence of the record
 - 30 – MODE_SELECTION_s[i].MAX_DURATION = ACCESS_MODE_MAX_DURATION
 31 field of the ith occurrence of the record
 - 32 • Reverse gain adjustment of the Enhanced Access Channel or Reverse Common
 33 Control Channel relative to the Reverse Pilot Channel (RLGAIN_COMMON_PILOT_s =
 34 RLGAIN_COMMON_PILOT_r)
 - 35 • The threshold level at which the interference correction begins to be applied
 36 (IC_THRESH_s = - IC_THRESH_r)
 - 37 • The maximum interference correction that can be applied (IC_MAX_s = IC_MAX_r)
 - 38 • Mode-specific parameters for the Enhanced Access Channel:

```

1   For i = 1 to NUM_MODE_PARM_REC + 1:
2     For j = 0 to 7:
3       If the (j+1)th subfield of APPLICABLE_MODES is equal to '1', store the
4         following parameters:
5         - Nominal transmit power offset on the Enhanced Access Channel
6           (MODE_PARMSS[j].EACH_NOM_PWR = EACH_NOM_PWR field of the ith
7             occurrence of the record)
8         - Initial power offset for access on the Enhanced Access Channel
9           (MODE_PARMSS[j].EACH_INIT_PWR = EACH_INIT_PWR field of the ith
10            occurrence of the record)
11        - Power increment on the Enhanced Access Channel
12          (MODE_PARMSS[j].EACH_PWR_STEP = EACH_PWR_STEP field of the ith
13            occurrence of the record )
14        - Number of access probes on the Enhanced Access Channel
15          (MODE_PARMSS[j].EACH_NUM_STEP = EACH_NUM_STEP field of the ith
16            occurrence of the record)
17        - Preamble enabled indicator on the Enhanced Access Channel
18          (MODE_PARMSS[j].EACH_PREAMBLE_ENABLED = EACH_PREAMBLE_E
19            NABLED field of the ith occurrence of the record)
20        - Number of preamble fractions sent on the Enhanced Access Channel if
21          MODE_PARMSS[j].EACH_PREAMBLE_ENABLED is equal to '1'
22          (MODE_PARMSS[j].EACH_PREAMBLE_NUM_FRAC =
23            EACH_PREAMBLE_NUM_FRAC field of the ith occurrence of the record)
24        - Fractional preamble duration on the Enhanced Access Channel if
25          MODE_PARMSS[j].EACH_PREAMBLE_ENABLED is equal to '1'
26          (MODE_PARMSS[j].EACH_PREAMBLE_FRAC_DURATION = EACH_PREAM
27            BLE_FRAC_DURATION field of the ith occurrence of the record)
28        - Preamble gated-off duration on the Enhanced Access Channel if
29          MODE_PARMSS[j].EACH_PREAMBLE_ENABLED is equal to '1'
30          (MODE_PARMSS[j].EACH_PREAMBLE_OFF_DURATION = EACH_PREAMB
31            LE_OFF_DURATION field of the ith occurrence of the record)
32        - Additional preamble duration on the Enhanced Access Channel if
33          MODE_PARMSS[j].EACH_PREAMBLE_ENABLED is equal to '1'
34          (MODE_PARMSS[j].EACH_PREAMBLE_ADD_DURATION =
35            EACH_PREAMBLE_ADD_DURATION field of the ith occurrence of the
36            record)
37
38  - Access threshold on the Enhanced Access Channel
39    (MODE_PARMSS[j].EACH_ACCESS_THRESH = EACH_ACCESS_THRESH
40    field of the ith occurrence of the record)
41
42  - Enhanced Access Channel probe backoff range

```

- (MODE_PARMS_S[j].EACH_PROBE_BKOFF = EACH_PROBE_BKOFF field of the ith occurrence of the record)
 - Enhanced Access Channel probe sequence backoff range
(MODE_PARMS_S[j].EACH_BKOFF = EACH_BKOFF field of the ith occurrence of the record)
 - Enhanced Access Channel slot (MODE_PARMS_S[j].EACH_SLOT = 1 + EACH_SLOT field of the ith occurrence of the record)
 - Enhanced Access Channel first slot offset
(MODE_PARMS_S[j].EACH_SLOT_OFFSET1 = EACH_SLOT_OFFSET1 field of the ith occurrence of the record)
 - Enhanced Access Channel second slot offset
(MODE_PARMS_S[j].EACH_SLOT_OFFSET2 = EACH_SLOT_OFFSET2 field of the ith occurrence of the record)

• Additional parameters for the Basic Access Mode:

If BA_PARMS_LEN_r is equal to '000', set the Basic Access Mode supported indicator, BA_SUPPORTED_S, to '0'; otherwise store the following parameters:

 - Basic Access Mode supported indicator (BA_SUPPORTED_S = '1')
 - Number of Enhanced Access Channels (NUM_EACH_BA_S = NUM_EACH_BA_r + 1)
 - Rate words supported on the Enhanced Access Channels
(EACH_BA_RATES_SUPPORTED_S = EACH_BA_RATES_SUPPORTED_r)

• Additional parameters for the Reservation Access Mode:

If RA_PARMS_LEN_r is equal to '00000', set the Reservation Access Mode supported indicator, RA_SUPPORTED_S, to '0'; otherwise store the following parameters, if included in the message:

 - Reservation Access Mode supported indicator (RA_SUPPORTED_S = '1')
 - Number of Enhanced Access Channels (NUM_EACH_RA_S = NUM_EACH_RA_r + 1)
 - Number of Common Assignment Channels (NUM_CACH_S = NUM_CACH_r + 1)
 - Code rate of Common Assignment Channels (CACH_CODE_RATE_S = CACH_CODE_RATE_r)
 - For i = 0 to NUM_CACH_S - 1, store the channel code index for each Common Assignment Channel (CACH_CODE_CHAN_S[i] = CACH_CODE_CHAN_r)
 - Number of Reverse Common Control Channels (NUM_RCCCH_S = NUM_RCCCH_r + 1)
 - Rate words supported on the Reverse Common Control Channels
(RCCCH_RATES_SUPPORTED_S = RCCCH_RATES_SUPPORTED_r)

- Preamble enabled indicator on the Reverse Common Control Channels
($\text{RCCCH_PREAMBLE_ENABLED}_s = \text{RCCCH_PREAMBLE_ENABLED}_r$)
- Number of preamble fractions sent on the Reverse Common Control Channel if
 $\text{RCCCH_PREAMBLE_ENABLED}_r$ is equal to '1'
($\text{RCCCH_PREAMBLE_NUM_FRAC}_s = \text{RCCCH_PREAMBLE_NUM_FRAC}_r$)
- Fractional preamble duration on the Reverse Common Control Channel if
 $\text{RCCCH_PREAMBLE_ENABLED}_r$ is equal to '1'
($\text{RCCCH_PREAMBLE_FRAC_DURATION}_s = \text{RCCCH_PREAMBLE_FRAC_DURATION}_r$)
- Preamble gated-off duration on the Reverse Common Control Channel if
 $\text{RCCCH_PREAMBLE_ENABLED}_r$ is equal to '1'
($\text{RCCCH_PREAMBLE_OFF_DURATION}_s = \text{RCCCH_PREAMBLE_OFF_DURATION}_r$)
- Additional preamble duration on the Reverse Common Control Channel if
 $\text{RCCCH_PREAMBLE_ENABLED}_r$ is equal to '1'
($\text{RCCCH_PREAMBLE_ADD_DURATION}_s = \text{RCCCH_PREAMBLE_ADD_DURATION}_r$)
- Slot duration on the Reverse Common Control Channel ($\text{RCCCH_SLOT}_s = \underline{1} + \text{RCCCH_SLOT}_r$)
- First slot offset of the Reverse Common Control Channel
($\text{RCCCH_SLOT_OFFSET1}_s = \text{RCCCH_SLOT_OFFSET1}_r$)
- Second slot offset of the Reverse Common Control Channel
($\text{RCCCH_SLOT_OFFSET2}_s = \text{RCCCH_SLOT_OFFSET2}_r$)
- Nominal transmit power offset on the Reverse Common Control Channel
($\text{RCCCH_NOM_PWR}_s = \text{RCCCH_NOM_PWR}_r$)
- Initial power offset for access on the Reverse Common Control Channel
($\text{RCCCH_INIT_PWR}_s = \text{RCCCH_INIT_PWR}_r$)
- Power Control delay for the Reservation Access Mode
($\text{RA_PC_DELAY}_s = \text{RA_PC_DELAY}_r$)
- Maximum delay to receive the *Early Acknowledgment Channel Assignment Message* on the Common Assignment Channel
($\text{EACAM_CACH_DELAY}_s = \text{EACAM_CACH_DELAY}_r$)
- Indicator for handoff supported on the Reverse Common Control Channels
($\text{RCCCH_HO_SUPPORTED}_s = \text{RCCCH_HO_SUPPORTED}_r$)
- Threshold for handoff on the Reverse Common Control Channels if
 $\text{RCCCH_HO_SUPPORTED}_r$ is equal to '1'
($\text{RCCCH_HO_THRESH}_s = \text{RCCCH_HO_THRESH}_r$)
- Maximum delay to receive the *Early Acknowledgment Channel Assignment Message* and the *Power Control Channel Assignment Message* if
 $\text{RCCCH_HO_SUPPORTED}_r$ is equal to '1'
($\text{EACAM_PCCAM_DELAY}_s = \text{EACAM_PCCAM_DELAY}_r$)

- 1 – Number of Common Power Control Channels ($\text{NUM_CPCCH}_S = \text{NUM_CPCCH}_R + 1$)
- 3 – Power control rate for the Common Power Control Channels ($\text{CPCCH_RATE}_S = \text{CPCCH_RATE}_R$)
- 5 – For $i = 0$ to $\text{NUM_CPCCH}_S - 1$, store the channel code index for each Common
6 Power Control Channel ($\text{CPCCH_CODE_CHAN}_S[i] = \text{CPCCH_CODE_CHAN}_R$,
- 7 – Number of Power Control Subchannels for the Reservation Access Mode
8 ($\text{NUM_PCSCH_RA}_S = \text{NUM_PCSCH_RA}_R + 1$)

9 2.6.2.2.16 ANSI-41 RAND Message

10 Whenever an *ANSI-41 RAND Message* is received, the mobile station shall process the fields
11 in the message as follows.

12 The mobile station shall store the following parameter if the mobile station is not in the
13 *Origination Attempt Substate* or *Page Response Substate*:

- 14 • Random challenge value ($\text{RAND}_S = \text{RAND}_R$)
- 15 • Pilot PN sequence offset increment ($\text{PILOT_PN}_S = \text{PILOT_PN}_R$)

16 The mobile station shall ignore any fields at the end of the *ANSI-41 RAND Message* which
17 are not defined according to the protocol revision level (MOB_P_REV_p of the current band
18 class) being used by the mobile station.

19 2.6.2.2.17 Universal Neighbor List Message

20 Whenever a valid *Universal Neighbor List Message* is received on the Primary Broadcast
21 Control Channel, the configuration message sequence number, CONFIG_MSG_SEQ_R shall
22 be compared to that stored in $\text{UNIV_NGHBR_LST_MSG_SEQ}_S$. If the comparison results in
23 a mismatch, then the mobile station shall process the remaining fields in the message as
24 described below.

25 The mobile station shall store the following parameters:

- 26 • Configuration message sequence number
($\text{CONFIG_MSG_SEQ}_S = \text{CONFIG_MSG_SEQ}_R$,
27 $\text{UNIV_NGHBR_LST_MSG_SEQ}_S = \text{CONFIG_MSG_SEQ}_R$).

29 If $\text{RADIO_INTERFACE_TYPE}_R$ is equal to '0000' but the PILOT_INC field is not within the
30 valid range specified in 3.7.2.3.2.33, then the mobile station shall ignore the entire record
31 that contains it.

32 If $\text{RADIO_INTERFACE_TYPE}_R$ is equal to '0000' and the PILOT_INC field is within the valid
33 range specified in 3.7.2.3.2.33, the mobile station shall perform the following:

34 The mobile station shall store the Pilot PN sequence offset increment ($\text{PILOT_INC}_S =$
35 PILOT_INC_R).

36 The mobile station shall set NGHBR_SET_SIZE_S to NUM_NGHBR_R .

1 For each of the neighboring base stations contained in the *Universal Neighbor List Message*,
 2 if FREQ_INCL_r is equal to '0', or if FREQ_INCL_r is equal to '1' and NGHBR_BAND_r is
 3 supported, the mobile station shall do the following:

- 4 • If the ith occurrence of NGHBR_CONFIG_r is equal to '000', '001', '010', or '100', set
 5 the NGHBR_CONFIG field of NGHBR_REC[i] to the ith occurrence of
 6 NGHBR_CONFIG_r; otherwise, set the NGHBR_CONFIG field of NGHBR_REC[i] to
 7 '011'.
 - 8 • Set the NGHBR_PN field of NGHBR_REC[i] to the ith occurrence of NGHBR_PN_r.
 - 9 • If NGHBR_CONFIG_r is equal to '011', set the BCCH_SUPPORT field of NGHBR_
 10 REC[i] to BCCH_SUPPORT_r of the corresponding record.
 - 11 • Set the ADD_PILOT_REC_INCL field of NGHBR_REC[i] to the ith occurrence of
 12 ADD_PILOT_REC_INCL_r. If ADD_PILOT_REC_INCL_r equals '1', for each pilot
 13 included in the message, the mobile station shall also perform the following:
 - 14 – Set the NGHBR_PILOT_REC_TYPE field of NGHBR_PILOT_REC to
 15 NGHBR_PILOT_REC_TYPE_r.
 - 16 – If NGHBR_PILOT_REC_TYPE_r is equal to '000'. The mobile station shall:
 - 17 + Set the TD_POWER_LEVEL field of NGHBR_PILOT_REC to
 18 TD_POWER_LEVEL_r.
 - 19 + Set the TD_MODE field of NGHBR_PILOT_REC to TD_MODE_r.
 - 20 – If NGHBR_PILOT_REC_TYPE_r is equal to '001', the mobile station shall:
 - 21 + Set the AUX_PILOT_QOF field of NGHBR_PILOT_REC to QOF_r.
 - 22 + Set the AUX_PILOT_WALSH_CODE field of NGHBR_PILOT_REC to
 23 AUX_PILOT_WALSH_r with the Walsh Code length specified by
 24 WALSH_LENGTH_r.
 - 25 – If NGHBR_PILOT_REC_TYPE_r is equal to '010', the mobile station shall:
 - 26 + Set the AUX_PILOT_QOF field of NGHBR_PILOT_REC to QOF_r.
 - 27 + Set the AUX_PILOT_WALSH_CODE field of NGHBR_PILOT_REC to
 28 AUX_WALSH_r with the Walsh Code length specified by WALSH_LENGTH_r.
 - 29 + Set the AUX_TD_POWER_LEVEL field of NGHBR_PILOT_REC to
 30 AUX_TD_POWER_LEVEL_r.
 - 31 + Set the TD_MODE field of NGHBR_PILOT_REC to TD_MODE_r.
 - 32 – If NGHBR_PILOT_REC_TYPE_r is equal to '011', the mobile station shall:
 - 33 + Set the SR3_PRIMARY_PILOT field of NGHBR_PILOT_REC to
 34 SR3_PRIMARY_PILOT_r.
 - 35 + Set the SR3_PILOT_POWER1 field of NGHBR_PILOT_REC to
 36 SR3_PILOT_POWER1_r.

- 1 + Set the SR3_PILOT_POWER2 field of NGHBR_PILOT_REC to
2 SR3_PILOT_POWER2_r.
- 3 – If NGHBR_PILOT_REC_TYPE_r is equal to ‘100’, the mobile station shall:
- 4 + Set the SR3_PRIMARY_PILOT field of NGHBR_PILOT_REC to
5 SR3_PRIMARY_PILOT_r.
- 6 + Set the SR3_PILOT_POWER1 field of NGHBR_PILOT_REC to
7 SR3_PILOT_POWER1_r.
- 8 + Set the SR3_PILOT_POWER2 field of NGHBR_PILOT_REC to
9 SR3_PILOT_POWER2_r.
- 10 + Set the AUX_PILOT_QOF field of NGHBR_PILOT_REC to QOF_r.
- 11 + Set the AUX_PILOT_WALSH_CODE field of NGHBR_PILOT_REC to
12 AUX_PILOT_WALSH_r with the Walsh Code length specified by
13 WALSH_LENGTH_r.
- 14 + If ADD_INFO_INCL1_r is equal to ‘1’, set the AUX_PILOT_QOF1 field of
15 NGHBR_PILOT_REC to QOF1_r and set the AUX_PILOT_WALSH_CODE1 field
16 of NGHBR_PILOT_REC to AUX_PILOT_WALSH1_r with the Walsh Code length
17 specified by WALSH_LENGTH1_r; otherwise, set the AUX_PILOT_QOF1 field of
18 NGHBR_PILOT_REC to QOF_r and set the AUX_PILOT_WALSH_CODE1 field of
19 NGHBR_PILOT_REC to AUX_PILOT_WALSH_r with the Walsh Code length
20 specified by WALSH_LENGTH_r.
- 21 + If ADD_INFO_INCL2_r is equal to ‘1’, set the AUX_PILOT_QOF2 field of
22 NGHBR_PILOT_REC to QOF2_r and set the AUX_PILOT_WALSH_CODE2 field
23 of NGHBR_PILOT_REC to AUX_PILOT_WALSH2_r with the Walsh Code length
24 specified by WALSH_LENGTH2_r; otherwise, set the AUX_PILOT_QOF2 field of
25 NGHBR_PILOT_REC to QOF_r and set the AUX_PILOT_WALSH_CODE2 field of
26 NGHBR_PILOT_REC to AUX_PILOT_WALSH_r with the Walsh Code length
27 specified by WALSH_LENGTH_r.
- 28 • If NGHBR_SRCH_MODE_r = ‘00’ or ‘10’, set the SEARCH_PRIORITY field of each
29 NGHBR_REC to ‘10’ (high) for all NGHBR_SET_SIZE_s entries.
- 30 • If NGHBR_SRCH_MODE_r = ‘01’ or ‘11’, set the SEARCH_PRIORITY field of
31 NGHBR_REC[i] to the ith occurrence of SEARCH_PRIORITY_r.
- 32 • If NGHBR_SRCH_MODE_r = ‘00’ or ‘01’, set the SRCH_WIN_NGHBR field of each
33 NGHBR_REC to SRCH_WIN_N_r for all NGHBR_SET_SIZE_s entries.
- 34 • If NGHBR_SRCH_MODE_r = ‘00’ or ‘01’, set the SRCH_OFFSET_NGHBR field of each
35 NGHBR_REC to ‘000’.
- 36 • If NGHBR_SRCH_MODE_r = ‘10’ or ‘11’:
 - 37 – set the SRCH_WIN_NGHBR field of NGHBR_REC[i] to the ith occurrence of
38 SRCH_WIN_NGHBR_r

- if SRCH_OFFSET_INCL_r equals to '1', set the SRCH_OFFSET_NGHBR field of NGHBR_REC[i] to the ith occurrence of SRCH_OFFSET_NGHBR_r, and
- if SRCH_OFFSET_INCL_r equals to '0', set the SRCH_OFFSET_NGHBR field of each NGHBR_REC to '000'.
- If USE_TIMING_r is equal to '1', set the TIMING_INCL field of NGHBR_REC[i] to the ith occurrence of TIMING_INCL_r; otherwise, set the TIMING_INCL field of NGHBR_REC to '0' for all entries.

For each of the neighboring base stations contained in the *Universal Neighbor List Message*, if FREQ_FIELDS_INCL_r equals '1', FREQ_INCL_r equals '1', and NGHBR_BAND_r is supported, the mobile station shall also perform the following:

- Set the NGHBR_BAND field of NGHBR_REC[i] to the ith occurrence of NGHBR_BAND_r.
- Set the NGHBR_FREQ field of NGHBR_REC[i] to the ith occurrence of NGHBR_FREQ_r.

For each of the neighboring base stations contained in the *Universal Neighbor List Message*, if USE_TIMING_r is equal to '1' and TIMING_INCL_r equals '1', the mobile station shall also perform the following:

- Set the NGHBR_TX_OFFSET field of NGHBR_REC[i] to the ith occurrence of NGHBR_TX_OFFSET_r.
- If GLOBAL_TIMING_INCL_r is equal to '1', then the mobile station shall:
 - Set the NGHBR_TX_DURATION field of NGHBR_REC to GLOBAL_TX_DURATION_r for all entries.
 - Set the NGHBR_TX_PERIOD field of NGHBR_REC to GLOBAL_TX_PERIOD_r for all entries.
- If GLOBAL_TIMING_INCL_r is equal to '0', then the mobile station shall:
 - Set the NGHBR_TX_DURATION field of NGHBR_REC[i] to the ith occurrence of NGHBR_TX_DURATION_r.
 - Set the NGHBR_TX_PERIOD field of NGHBR_REC[i] to the ith occurrence of NGHBR_TX_PERIOD_r.

For each of the neighboring base stations contained in the *Universal Neighbor List Message*, if FREQ_FIELDS_INCL_r equals '1' and FREQ_INCL_r equals '0' the mobile station shall also do the following:

- Set the NGHBR_BAND field of NGHBR_REC[i] to CDMABAND_s.
- Set the NGHBR_FREQ field of NGHBR_REC[i] to CDMACH_s.

If NGHBR_SET_ENTRY_INFO_r is equal to '0', then for all NGHBR_SET_SIZE_s occurrences of ACCESS_ENTRY_HO, the mobile station shall set the ACCESS_ENTRY_HO field of NGHBR_REC[i] to '0'.

1 If NGHBR_SET_ENTRY_INFO_r is equal to '1', then for all NGHBR_SET_SIZE_s occurrences of
 2 ACCESS_ENTRY_HO, the mobile station shall set the ACCESS_ENTRY_HO field of
 3 NGHBR_REC[i] to the ith occurrence of ACCESS_ENTRY_HO_r.

4 If NGHBR_SET_ACCESS_INFO_r is equal to '0', then for all NGHBR_SET_SIZE_s occurrences
 5 of ACCESS_HO_ALLOWED, the mobile station shall set the ACCESS_HO_ALLOWED field of
 6 NGHBR_REC[i] to '0'.

7 If NGHBR_SET_ACCESS_INFO_r is equal to '1', then for all NGHBR_SET_SIZE_s occurrences
 8 of ACCESS_HO_ALLOWED, the mobile station shall set the ACCESS_HO_ALLOWED field of
 9 NGHBR_REC[i] to the ith occurrence of ACCESS_HO_ALLOWED_r.

10 The mobile station shall update the idle handoff Neighbor Set (see 2.6.2.1.4) so that it
 11 consists only of pilot offsets listed in the *Universal Neighbor List Message*. If the *Universal*
 12 *Neighbor List Message* contains more pilot offsets than the mobile station can store, the
 13 mobile station shall store the pilot offsets beginning at the start of the *Universal Neighbor*
 14 *List Message*, up to the limits of the mobile station's Neighbor Set storage capacity.

15 If RADIO_INTERFACE_TYPE_r is equal to '0001', the mobile station shall process the fields
 16 contained in the record as follows:

17 The mobile station shall set NUM_ANALOG_NGHBR_s to NUM_ANALOG_NGHBR_r, the
 18 number of neighboring analog systems contained in the *Universal Neighbor List Message*.
 19 For each of the neighboring analog systems contained in the *Universal Neighbor List*
 20 *Message*, the mobile station shall perform the following:

- 21 • Set the BAND_CLASS field of ANALOG_NGHBR_LIST[i] to the ith occurrence of
 22 BAND_CLASS_r.
- 23 • Set the SYS_A_B field of ANALOG_NGHBR_LIST[i] to the ith occurrence of SYS_A_B_r.

24 2.6.2.3 Mobile Station Page Match Operation

25 The *Mobile Station Page Match Operation* is performed whenever the mobile station receives
 26 a mobile-station-addressed page or a broadcast page. If the mobile station receives a
 27 mobile-station-addressed page that contains the IMSI or TMSI assigned to the mobile
 28 station (see [4]) on the Paging Channel, the mobile station transmits a *Page Response*
 29 *Message* on the Access Channel. If the mobile station receives a mobile-station-addressed
 30 page that contains the IMSI or TMSI assigned to the mobile station (see [4]) on the Forward
 31 Common Control Channel, the mobile station transmits a *Page Response Message* on the r-
 32 csch. If the mobile station is configured to receive broadcast messages and it receives a
 33 *General Page Message* that contains a burst type and broadcast address that the mobile
 34 station has been configured to receive (see [4]) on the Paging Channel, the mobile station
 35 performs the broadcast page procedures as described in 2.6.2.1.1.3.4. If the mobile station
 36 is configured to receive broadcast messages and it receives a *General Page Message* or a
 37 *Universal Page Message* that contains a burst type and broadcast address that the mobile
 38 station has been configured to receive (see [4]) on the Forward Common Control Channel,
 39 the mobile station performs the enhanced broadcast page procedures as described in
 40 2.6.2.1.1.3.6.

When the mobile station receives a page message, it shall compare the configuration message sequence number, CONFIG_MSG_SEQ_r, to CONFIG_MSG_SEQ_s. If the comparison results in a mismatch, then the mobile station shall set CONFIG_MSG_SEQ_s to CONFIG_MSG_SEQ_r. The mobile station shall also compare the *Access Parameters Message* or the *Enhanced Access Parameters Message* sequence number, ACC_MSG_SEQ_r, with that stored in ACC_MSG_SEQ_s. If the comparison results in a mismatch, then the mobile station shall set ACC_MSG_SEQ_s to NULL (see 2.6.2.2). The mobile station shall set CURR_ACC_MSG_SEQ to ACC_MSG_SEQ_s.

The mobile station shall process each record for which it declares a page match (see [4]).

If the mobile station receives a broadcast page that contains a burst type and broadcast address that the mobile station has been configured to receive on the Paging Channel, the mobile station should perform the broadcast page procedures described in 2.6.2.1.1.3.4. If the mobile station receives a broadcast page that contains a burst type and broadcast address that the mobile station has been configured to receive on the Forward Common Control Channel, the mobile station should perform the enhanced broadcast page procedures as described in 2.6.2.1.1.3.6.

If a page match is declared, [the mobile station shall perform the following:](#)

- [• The mobile station shall set SYNC_ID_s to NULL if the mobile station is currently in a different SID, NID, or CDMA Channel than where the SYNC_ID_s was stored.](#)
- [• the mobile station shall enter the *Update Overhead Information Substate* of the *System Access State* \(see 2.6.3.2\) with a page response indication within T33m seconds after the page message is received.](#)

If a page match is declared and the mobile station determines that it should be monitoring a neighboring base station, the mobile station may perform an access entry handoff to the neighboring base station, if all of the following conditions hold:

- The neighboring base station is listed in NGHBR_REC.
- The ACCESS_ENTRY_HO field of the NGHBR_REC corresponding to the neighboring base station is equal to '1'.
- If the mobile station performs an access entry handoff on the Access Channel, none of CONFIG_MSG_SEQ_s, SYS_PAR_MSG_SEQ_s, NGHBR_LST_MSG_SEQ_s, EXT_NGHBR_LST_MSG_SEQ_s, GEN_NGHBR_LST_MSG_SEQ_s, CHAN_LST_MSG_SEQ_s, EXT_SYS_PAR_MSG_SEQ_s, EXT_CHAN_LST_MSG_SEQ_s, USER_ZONE_ID_MSG_SEQ_s, and PRI_NGHBR_LST_MSG_SEQ_s are equal to NULL.
- If the mobile station performs an access entry handoff on the Enhanced Access Channel, none of CONFIG_MSG_SEQ_s, A41_SYS_PAR_MSG_SEQ_s, MC_RR_PAR_MSG_SEQ_s, UNI_NGHBR_LST_MSG_SEQ_s, EXT_CHAN_LST_MSG_SEQ_s, USER_ZONE_ID_MSG_SEQ_s, and PRI_NGHBR_LST_MSG_SEQ_s are equal to NULL.

Otherwise, the mobile station shall not perform an access entry handoff to the neighboring base station.

- 1 The mobile station need not perform an access entry handoff to a base station operating on
 2 another frequency.
- 3 If the mobile station performs an access entry handoff, it shall follow the procedures
 4 specified in 2.6.2.1.4.2 and shall perform the access entry handoff before entering the
 5 *Update Overhead Information Substate* of the *System Access State* (see 2.6.3.2).
- 6 If PACA is enabled, and if the mobile station performs an access entry handoff, the mobile
 7 station shall respond to the mobile-station-addressed page first and shall then re-originate
 8 the PACA call on the new base station.

9 2.6.2.4 Mobile Station Order and Message Processing Operation

10 During the *Mobile Station Order and Message Processing Operation*, the mobile station
 11 processes all messages except overhead messages (see 2.6.2.2) and page messages (see
 12 2.6.2.3).

13 The mobile station shall set CURR_ACC_MSG_SEQ to NULL.

14 The mobile station shall perform address matching as described in 2.1.2.2 of [4].

15 If Layer 3 receives a message that requires acknowledgement, the mobile station shall enter
 16 the *Update Overhead Information Substate* of the *System Access State* with an
 17 order/message response indication within T_{33m} seconds, unless otherwise specified for a
 18 particular message.

19 If Layer 3 receives a message that does not require acknowledgement, the mobile station
 20 shall transmit a response only if it is required by the message or order. If a response is
 21 required, the mobile station shall enter the *Update Overhead Information Substate* of the
 22 *System Access State* with an order/message response indication within T_{33m} seconds,
 23 unless otherwise specified for a particular message.

24 If the mobile station is to enter the *Update Overhead Information Substate* of the *System
 25 Access State* with an order/message response indication and the mobile station determines
 26 that it should be monitoring a neighboring base station, the mobile station may perform an
 27 access entry handoff to the neighboring base station, if all of the following conditions hold:

- 28 • The neighboring base station is listed in NGHBR_REC.
- 29 • The ACCESS_ENTRY_HO field of the NGHBR_REC corresponding to the neighboring
 30 base station is equal to '1'.
- 31 • ACC_ENT_HO_ORDER_S is equal to '1'.
- 32 • If the mobile station performs an access entry handoff on the Access Channel, none
 33 of CONFIG_MSG_SEQ_S, SYS_PAR_MSG_SEQ_S, NGHBR_LST_MSG_SEQ_S,
 34 EXT_NGHBR_LST_MSG_SEQ_S, GEN_NGHBR_LST_MSG_SEQ_S,
 35 CHAN_LST_MSG_SEQ_S, EXT_CHAN_LST_MSG_SEQ_S, USER_ZONE_ID_MSG_SEQ_S,
 36 PRI_NGHBR_LST_MSG_SEQ_S, and EXT_SYS_PAR_MSG_SEQ_S are equal to NULL.

- 1 • If the mobile station performs an access entry handoff on the Enhanced Access
 2 Channel, none of CONFIG_MSG_SEQ_S, A41_SYS_PAR_MSG_SEQ_S,
 3 MC_RR_PAR_MSG_SEQ_S, UNI_NGHBR_LST_MSG_SEQ_S,
 4 EXT_CHAN_LST_MSG_SEQ_S, USER_ZONE_ID_MSG_SEQ_S, and
 5 PRI_NGHBR_LST_MSG_SEQ_S are equal to NULL.

6 Otherwise, the mobile station shall not perform an access entry handoff to the neighboring
 7 base station.

8 The mobile station need not perform an access entry handoff to a base station operating on
 9 another frequency.

10 If the mobile station performs an access entry handoff, it shall follow the procedures
 11 specified in 2.6.2.1.4.2 and shall perform the access entry handoff before entering the
 12 *Update Overhead Information Substate* of the *System Access State* (see 2.6.3.2). If PACA is
 13 enabled and the mobile station performs an access entry handoff, the mobile station shall
 14 respond to the order/message first and then re-originate the PACA call in the new base
 15 station.

16 The following directed messages and orders can be received. If any field value of the
 17 message or order is outside its permissible range, the mobile station shall send a *Mobile*
 18 *Station Reject Order* with ORDQ equal to '00000100' (message field not in valid range).

- 19 1. *Abbreviated Alert Order*: The mobile station may alert the user.
- 20 2. *Audit Order*
- 21 3. *Authentication Challenge Message*: The mobile station shall process the message
 22 and shall respond with an *Authentication Challenge Response Message* as specified
 23 in 2.3.12.1.4, regardless of the value of AUTH_S. The mobile station shall enter the
 24 *Update Overhead Information Substate* of the *System Access State* with an
 25 order/message response indication within T32m seconds.
- 26 4. *Base Station Challenge Confirmation Order*: The mobile station shall process the
 27 message and shall respond with an *SSD Update Confirmation Order* or *SSD Update*
 28 *Rejection Order* as specified in 2.3.12.1.5. The mobile station shall enter the *Update*
 29 *Overhead Information Substate* of the *System Access State* with an order/message
 30 response indication within T32m seconds.

31 5. *Base Station Reject Order*:

- 32 • If ORDQ_r = '00000001', the mobile station shall send a *Security Mode Request*
 33 *Message* with the ENC SIG H field included in it. If the mobile receives two *Base*
 34 *Station Reject Orders* without successfully decrypting any encrypted messages
 35 from the base station between the orders, the mobile station shall set
 36 REG_ENCRYPT RESYNC to YES and enter the *System Determination Substate*
 37 with an encryption failure indication.

38 5.6. *Channel Assignment Message*: The mobile station shall process the message as
 39 follows:

- 40 • If ASSIGN_MODE_r equals '001', the mobile station shall perform the following
 41 actions:

- If the message requires acknowledgement, the mobile station shall wait until Layer 3 receives an indication from Layer 2 that the acknowledgement to the message has been sent and acknowledged.
- If a CDMA channel (CDMA_FREQ) is specified in the assignment, the mobile station shall set CDMACH_S = CDMA_FREQ_r, tune to the new Frequency Assignment, and measure the strength of each pilot listed in the assignment using the Neighbor Set search procedures specified in 2.6.6.2.1 and 2.6.6.2.2.
- The mobile station shall set CONFIG_MSG_SEQ_S and ACC_MSG_SEQ_S to NULL (see 2.6.2.2) and shall set PILOT_PN_S to the pilot PN sequence offset of the strongest pilot in the list (PILOT_PN_r).
- If the mobile station has not stored configuration parameters for the Primary Paging Channel of the new base station, or if the stored information is not current (see 2.6.2.2), the mobile station shall set SYS_PAR_MSG_SEQ_S, NGHBR_LST_MSG_SEQ_S, EXT_NGHBR_LST_MSG_SEQ_S, GEN_NGHBR_LST_MSG_SEQ_S, CHAN_LST_MSG_SEQ_S, EXT_CHAN_LST_MSG_SEQ_S, EXT_SYS_PAR_MSG_SEQ_S, USER_ZONE_ID_MSG_SEQ_S, PRI_NGHBR_LST_MSG_SEQ_S, GLOB_SERV_REDIR_MSG_SEQ_S, and EXT_GLOB_SERV_REDIR_MSG_SEQ_S to NULL. The mobile station shall set PAGE_CHAN_S to '1' and PAGECH_S to the Primary Paging Channel. If the mobile station was monitoring Forward Common Control Channel, the mobile station shall set the PRAT_S to '00'. The mobile station shall then begin monitoring the Primary Paging Channel of the selected base station.
- If ASSIGN_MODE_r equals '101' and FREQ_INCL_r equals '0', the mobile station shall perform the following actions:
 - If the message requires acknowledgement, the mobile station shall wait until Layer 3 receives an indication from Layer 2 that the acknowledgement to the message has been sent and acknowledged.
 - The mobile station shall measure the strength of each pilot listed in the assignment using the Neighbor Set search procedures specified in 2.6.6.2.1 and 2.6.6.2.2, set PILOT_PN_S to the pilot PN sequence offset of the strongest pilot in the list (PILOT_PN_r), and set CONFIG_MSG_SEQ_S and ACC_MSG_SEQ_S to NULL (see 2.6.2.2).

- If the mobile station has not stored configuration parameters for the Primary Paging Channel of the new base station, or if the stored information is not current (see 2.6.2.2), the mobile station shall set SYS_PAR_MSG_SEQ_S, NGHBR_LST_MSG_SEQ_S, EXT_NGHBR_LST_MSG_SEQ_S, GEN_NGHBR_LST_MSG_SEQ_S, CHAN_LST_MSG_SEQ_S, EXT_CHAN_LST_MSG_SEQ_S, EXT_SYS_PAR_MSG_SEQ_S, USER_ZONE_ID_MSG_SEQ_S, PRI_NGHBR_LST_MSG_SEQ_S, GLOB_SERV_REDIR_MSG_SEQ_S, and EXT_GLOB_SERV_REDIR_MSG_SEQ_S to NULL. The mobile station shall set PAGE_CHAN_S to '1' and PAGECH_S to the Primary Paging Channel. The mobile station shall then begin monitoring the Primary Paging Channel of the selected base station.
- If ASSIGN_MODE_r equals '101', FREQ_INCL_r equals '1', and the band class is not supported by the mobile station, the mobile station shall enter the *Update Overhead Information Substate* of the *System Access State* with an order/message response indication within T33m seconds and send a *Mobile Station Reject Order* with ORDQ field set to '00000110' (capability not supported by the mobile station).
- If ASSIGN_MODE_r equals '101', FREQ_INCL_r equals '1', and the band class is supported by the mobile station, the mobile station shall perform the following actions:
 - If the message requires acknowledgment, the mobile station shall wait until Layer 3 receives an indication from Layer 2 that the acknowledgment to the message has been sent and acknowledged.
 - The mobile station shall set CDMACH_S = CDMA_FREQ_r and CDMABAND_S = BAND_CLASS_r. Then the mobile station shall tune to the new Frequency Assignment, measure the strength of each pilot listed in the assignment using the Neighbor Set search procedures specified in 2.6.6.2.1 and 2.6.6.2.2, set PILOT_PN_S to the pilot PN sequence offset of the strongest pilot in the list (PILOT_PN_r), and set CONFIG_MSG_SEQ_S and ACC_MSG_SEQ_S to NULL (see 2.6.2.2).
 - If the mobile station has not stored configuration parameters for the Primary Paging Channel of the new base station, or if the stored information is not current (see 2.6.2.2), the mobile station shall set SYS_PAR_MSG_SEQ_S, NGHBR_LST_MSG_SEQ_S, EXT_NGHBR_LST_MSG_SEQ_S, GEN_NGHBR_LST_MSG_SEQ_S, CHAN_LST_MSG_SEQ_S, EXT_CHAN_LST_MSG_SEQ_S, EXT_SYS_PAR_MSG_SEQ_S, USER_ZONE_ID_MSG_SEQ_S, PRI_NGHBR_LST_MSG_SEQ_S, GLOB_SERV_REDIR_MSG_SEQ_S, and EXT_GLOB_SERV_REDIR_MSG_SEQ_S to NULL. The mobile station shall set PAGE_CHAN_S to '1' and PAGECH_S to the Primary Paging Channel. The mobile station shall then begin monitoring the Primary Paging Channel of the selected base station.

- 1 • If ASSIGN_MODE_r is not equal to ‘001’ or ‘101’, the mobile station shall enter
 2 the *Update Overhead Information Substate* of the *System Access State* with an
 3 order/message response indication within T_{33m} seconds and send a *Mobile*
 4 *Station Reject Order* with ORDQ field set to ‘00000010’ (message not accepted in
 5 this state).

6 6.7. Data Burst Message

7 7.8. Extended Channel Assignment Message: The mobile station shall process the
 8 message as follows:

- 9 • If ASSIGN_MODE_r equals ‘001’, FREQ_INCL_r equals ‘0’, the mobile station shall
 10 perform the following actions:
 11 - If the message requires acknowledgement, the mobile station shall wait until
 12 Layer 3 receives an indication from Layer 2 that the acknowledgement to the
 13 message has been sent and acknowledged.
 14 - The mobile station shall measure the strength of each pilot listed in the
 15 assignment using the Neighbor Set search procedures specified in 2.6.6.2.1
 16 and 2.6.6.2.2 set PILOT_PNs to the pilot PN sequence offset of the strongest
 17 pilot in the list (PILOT_PN_r), and set CONFIG_MSG_SEQs and
 18 ACC_MSG_SEQs to NULL (see 2.6.2.2).
 19 - If the mobile station has not stored configuration parameters for the Primary
 20 Paging Channel of the new base station, or if the stored information is not
 21 current (see 2.6.2.2), the mobile station shall set SYS_PAR_MSG_SEQs,
 22 NGHBR_LST_MSG_SEQs, EXT_NGHBR_LST_MSG_SEQs,
 23 GEN_NGHBR_LST_MSG_SEQs, CHAN LST MSG SEQs,
 24 EXT CHAN LST MSG SEQs, EXT_SYS_PAR_MSG_SEQs,
 25 USER_ZONE_ID_MSG_SEQs, PRI_NGHBR_LST_MSG_SEQs,
 26 GLOB_SERV_REDIR_MSG_SEQs, and EXT_GLOB_SERV_REDIR_MSG_SEQs
 27 to NULL. The mobile station shall set PAGE_CHANs to ‘1’ and PAGECHs to
 28 the Primary Paging Channel. If the mobile station was monitoring Forward
 29 Common Control Channel, the mobile station shall set the PRATs to ‘00’. The
 30 mobile station shall then begin monitoring the Primary Paging Channel of
 31 the selected base station.
 32 • If ASSIGN_MODE_r equals ‘001’, FREQ_INCL_r equals ‘1’, and the band class is
 33 not supported by the mobile station, the mobile station shall enter the *Update*
 34 *Overhead Information Substate* of the *System Access State* with an
 35 order/message response indication within T_{33m} seconds and send a *Mobile*
 36 *Station Reject Order* with ORDQ field set to ‘00000110’ (capability not supported
 37 by the mobile station).
 38 • If ASSIGN_MODE_r equals ‘001’, FREQ_INCL_r equals ‘1’, and the band class is
 39 supported by the mobile station, the mobile station shall perform the following
 40 actions:

- If the message requires acknowledgement, the mobile station shall wait until Layer 3 receives an indication from Layer 2 that the acknowledgement to the message has been sent and acknowledged.
- The mobile station shall set $CDMACH_s = CDMA_FREQ_r$ and $CDMABAND_s = BAND_CLASS_r$. The mobile station shall set $CONFIG_MSG_SEQ_s$ and $ACC_MSG_SEQ_s$ to NULL (see 2.6.2.2). Then the mobile station shall tune to the new Frequency Assignment, measure the strength of each pilot listed in the assignment using the Neighbor Set search procedures specified in 2.6.6.2.1 and 2.6.6.2.2, and set $PILOT_PN_s$ to the pilot PN sequence offset of the strongest pilot in the list ($PILOT_PN_r$).
- If the mobile station has not stored configuration parameters for the Primary Paging Channel of the new base station, or if the stored information is not current (see 2.6.2.2), the mobile station shall set $SYS_PAR_MSG_SEQ_s$, $NGHBR_LST_MSG_SEQ_s$, $EXT_NGHBR_LST_MSG_SEQ_s$, $GEN_NGHBR_LST_MSG_SEQ_s$, $CHAN_LST_MSG_SEQ_s$, $EXT_CHAN_LST_MSG_SEQ_s$, $EXT_SYS_PAR_MSG_SEQ_s$, $USER_ZONE_ID_MSG_SEQ_s$, $PRI_NGHBR_LST_MSG_SEQ_s$, $GLOB_SERV_REDIR_MSG_SEQ_s$, and $EXT_GLOB_SERV_REDIR_MSG_SEQ_s$ to NULL. The mobile station shall set $PAGE_CHAN_s$ to '1' and $PAGECH_s$ to the Primary Paging Channel. The mobile station shall then begin monitoring the Primary Paging Channel of the selected base station.
- If $ASSIGN_MODE_r$ is not equal to '001', the mobile station shall enter the *Update Overhead Information Substate* of the *System Access State* with an order/message response indication within T_{33m} seconds and send a *Mobile Station Reject Order* with $ORDQ$ field set to '00000010' (message not accepted in this state).

8.9. Feature Notification Message

9.10. Local Control Order

10.11 Lock Until Power-Cycled Order: The mobile station shall record the reason for the *Lock Until Power-Cycled Order* in the mobile station's semi-permanent memory ($LCKRSN_{Ps-p}$ equals the least significant four bits of $ORDQ_r$). After a mobile station receives this order, it shall not enter the *System Access State* (see 2.6.3) until it has received an *Unlock Order* or until after power-cycling the mobile station (i.e., after the next mobile station power-up). This requirement shall take precedence over any other mobile station requirement specifying entry to the *System Access State*. The mobile station should notify the user of the locked condition. The mobile station shall exit the *Mobile Station Idle State* and enter the *System Determination Substate* of the *Mobile Station Initialization State* with a lock indication (see 2.6.1.1). This allows the mobile station to operate in an alternate operating mode while locked.

11.12 Maintenance Required Order: The mobile station shall record the reason for the *Maintenance Required Order* in the mobile station's semi-permanent memory ($MAINTRSN_{s-p}$ equals the least significant four bits of $ORDQ_r$). If the mobile station has previously received a *Lock Until Power-Cycled Order*, it shall remain in the locked

1 condition; otherwise the mobile station shall remain in the unlocked condition. The
 2 mobile station should notify the user of the maintenance required condition.

3 **12.13 PACA Message:** If P_REV_IN_USE_S is less than or equal to four, and if the
 4 mobile station does not support PACA capability, the mobile station shall send a *Mobile*
 5 *Station Reject Order* with the ORDQ field set to '00000110' (message requires a
 6 capability that is not supported by the mobile station); otherwise, the mobile station
 7 shall process the message as follows:

- 8 • If PACA_S is equal to disabled, the mobile station shall enter the *Update Overhead*
 9 *Information Substate* of the *System Access State* with an order/message response
 10 indication within T_{33m} seconds and shall send a *Mobile Station Reject Order* with
 11 the ORDQ field set to '00000010' (message not accepted in this state).
- 12 • If PACA_S is equal to enabled, the mobile station shall perform the following:
 - 13 – If the purpose of the message is to respond to an *Origination Message*
 14 (PURPOSE_r is equal to '0000'), the mobile station shall enter the *Update*
 15 *Overhead Information Substate* of the *System Access State* with an
 16 order/message response indication within T_{33m} seconds and send a *Mobile*
 17 *Station Reject Order* with the ORDQ field set to '00000010' (message not
 18 accepted in this state).
 - 19 – If the purpose of the message is to provide the queue position of the PACA
 20 call (PURPOSE_r is equal to '0001'), the mobile station shall set the PACA
 21 state timer to the duration shown in Table 3.7.2.3.2.20-2, corresponding to
 22 the value of PACA_TIMEOUT_S, should indicate to the user that the PACA call
 23 is still queued, and should indicate the current queue position (Q_POS_r) of
 24 the call.
 - 25 – If the purpose of the message is to instruct the mobile station to re-originate
 26 the PACA call (PURPOSE_r is equal to '0010'), the mobile station shall set the
 27 PACA state timer to the duration shown in Table 3.7.2.3.2.20-2
 28 corresponding to the value of PACA_TIMEOUT_S, and the mobile station shall
 29 enter the *Update Overhead Information Substate* of the *System Access State*
 30 (see 2.6.3) with a PACA response indication within T_{33m} seconds to re-
 31 originate the PACA call.
 - 32 – If the purpose of the message is to cancel the PACA call (PURPOSE_r is equal
 33 to '0011'), the mobile station shall set PACA_S to disabled and PACA_CANCEL
 34 to '0', shall disable the PACA state timer, and should indicate to the user
 35 that the PACA call has been canceled.

36 **13.14 Registration Accepted Order:**

- 37 • If ORDQ_r = '00000101', the mobile station shall set ROAM_INDI_S = ROAM_INDI_r
 38 and should display the roaming condition.
- 39 • If ORDQ_r = '00000111', the mobile station shall perform the following
 - 40 – The mobile station shall set ROAM_INDI_S =to ROAM_INDI_r and should
 41 display the roaming condition.

- The mobile station shall set C_SIG_ENCRYPT_MODE_s =to C_SIG_ENCRYPT_MODE_r.
- If USE_NEW_KEY_r is not included, or is included and is set to ‘1’, the mobile station shall use the session key generated at the most recent registration for encryption of signaling and user information. The mobile station shall store the session key in KEY_s[KEY_SEQ_NEW_{s-p}]. The mobile station shall store KEY_SIZE_r in KEY_SIZE_s. The mobile station shall increment the variable KEY_SEQ_NEW_{s-p} by one (modulo 16). If ENC KEY SIZE_r is included, the mobile station shall set ENC KEY SIZE_s to ENC KEY SIZE_r.
If USE_NEW_KEY_r is included and is set to ‘0’, then the mobile station shall use KEY_s[KEY_SEQ_r] as the session key.
- If C SIG ENCRYPT MODE_r is not equal to ‘000’, the mobile station shall set ENC KEY_s to the most recently generated CMEAKEY in the mobile station associated with the AUTHR of the *Registration Message*, and EXT ENCRYPT SEQ[0] and EXT ENCRYPT SEQ[1] to $256 \times$ ENC SEQ H (the ENC SEQ H field in the *Registration Message*).

14.15 Registration Rejected Order: This order indicates that normal service is not available on this system. The mobile station shall disable the full-TMSI timer. If the received order specifies to delete the TMSI (ORDQ = ‘00000100’), the mobile station shall set all the bits of the TMSI_CODE_{s-p} to ‘1’. The mobile station shall enter the *System Determination Substate* of the *Mobile Station Initialization State* with a registration rejected indication (see 2.6.1.1).

15.16 Registration Request Order: The mobile station shall process the message and perform registration procedures as specified in 2.6.5.5.2.3.

16.17 Security Mode Command Message: The mobile station shall process the message as follows:

- The mobile station shall set C_SIG_ENCRYPT_MODE_s to C_SIG_ENCRYPT_MODE_r.
- If USE_NEW_KEY_r is not included, or is included and is set to ‘1’, the mobile station shall use the session key generated at the most recent registration for encryption of signaling and user information. The mobile station shall store the session key in KEY_s[KEY_SEQ_NEW_{s-p}]. The mobile station shall store KEY_SIZE_r in KEY_SIZE_s. The mobile station shall then increment the variable KEY_SEQ_NEW_{s-p} by one (modulo 16). If ENC KEY SIZE_r is included, the mobile station shall set ENC KEY SIZE_s to ENC KEY SIZE_r.
- If USE_NEW_KEY_r is included and is set to ‘0’, then the mobile station shall use KEY_s[KEY_SEQ_r] as the session key.

17. 18 Service Redirection Message: The mobile station shall process the message as follows:

- 1 • If the mobile station is directed to an unsupported operation mode or band class,
2 the mobile station shall respond with a *Mobile Station Reject Order* with ORDQ
3 equal to '00000110' (message requires a capability that is not supported by the
4 mobile station).
- 5 • If DELETE_TMSI_r is equal to '1', the mobile station shall set all the bits of
6 TMSI_CODE_{s-p} to '1'. The mobile station shall disable the full-TMSI timer.
- 7 • The mobile station shall set RETURN_IF_FAIL_s = RETURN_IF_FAIL_r.
- 8 • If RECORD_TYPE_r is equal to '00000000', the mobile station shall enter the
9 *System Determination Substate* of the *Mobile Station Initialization State* with an
10 NDSS off indication (see 2.6.1.1); otherwise, the mobile station shall store the
11 redirection record received in the message as REDIRECT_REC_s and shall enter
12 the *System Determination Substate* of the *Mobile Station Initialization State* with a
13 redirection indication (see 2.6.1.1).

14 18.19 *Retry Order*: The mobile station shall process the message as follows:

- 15 • If RETRY_TYPE_r is equal to '000', the mobile station shall set
16 RETRY_DELAY_s[RETRY_TYPE] to 0, where RETRY_TYPE is equal to '001', '010',
17 or '011'.
- 18 • If RETRY_TYPE_r is equal to '001', the mobile station shall perform the following:
19 – If RETRY_DELAY_r is equal to '00000000', then the mobile station shall set
20 RETRY_DELAY_s[RETRY_TYPE_r] to 0.
21 – If RETRY_DELAY_r is not equal to '00000000', the mobile station shall set
22 RETRY_DELAY_s[RETRY_TYPE_r] as follows:
23 + If the most significant bit of the RETRY_DELAY_r is '0', set
24 RETRY_DELAY_UNIT_s to 1000ms. If the most significant bit of the
25 RETRY_DELAY_r is '1', set RETRY_DELAY_UNIT_s to 6000ms.
26 + The mobile station shall set RETRY_DELAY_VALUE_s to the seven least
27 significant bits of RETRY_DELAY_r.
28 + The mobile station shall store the next system time 80 ms boundary +
29 RETRY_DELAY_VALUE_s × RETRY_DELAY_UNIT_s ms as
30 RETRY_DELAY_s[RETRY_TYPE_r].

31 19.20 *Slotted Mode Order*: After receiving this order, the mobile station shall set
32 SLOTTED_s to YES. The mobile station shall disable the TMS_Slotted timer.

33 20.21 *SSD Update Message*: The mobile station shall process the message and shall
34 respond with a *Base Station Challenge Order* as specified in 2.3.12.1.5. The mobile
35 station shall enter the *Update Overhead Information Substate* of the *System Access*
36 *State* with an order/message response indication within T_{32m} seconds.

37 21.22 *Status Request Message*: The mobile station shall process the message. If
38 P_REV_IN_USE_s is less than or equal to three, the mobile station shall respond with a
39 *Status Response Message*. If P_REV_IN_USE_s is greater than three, the mobile station
40 shall respond with an *Extended Status Response Message*. The mobile station shall

1 enter the *Update Overhead Information Substate* of the *System Access State* with an
 2 order/message response indication within T_{33m} seconds. If the message does not
 3 specify any qualification information (QUAL_INFO_TYPE_r is equal to '00000000'), the
 4 mobile station shall include the requested information records in the response. If the
 5 message specifies a band class (QUAL_INFO_TYPE_r is equal to '00000001'), the mobile
 6 station shall only include the requested information records for the specified band class
 7 (BAND_CLASS_r) in the response. If the message specifies a band class and an
 8 operating mode (QUAL_INFO_TYPE_r is equal to '00000010'), the mobile station shall
 9 only include the requested information records for the specified band class
 10 (BAND_CLASS_r) and operating mode (OP_MODE_r) in the response. If the message
 11 specifies a band class or a band class and an operating mode which is not supported
 12 by the mobile station, the mobile station shall send a *Mobile Station Reject Order* with
 13 ORDQ set to '00000110' (message requires a capability that is not supported by the
 14 mobile station). If the response to this message exceeds the allowable length, the
 15 mobile station shall send a *Mobile Station Reject Order* with ORDQ set to '00001000'
 16 (response message would exceed the allowable length). If the message specifies an
 17 information record which is not supported by the mobile station for the specified band
 18 class and operating mode, the mobile station shall send a *Mobile Station Reject Order*
 19 with ORDQ set to '00001001' (information record is not supported for the specified
 20 band class and operating mode).

21 | **22.23 TMSI Assignment Message:** The mobile station shall store the TMSI zone and
 22 code as follows:

- 23 • The mobile station shall store the length of the TMSI zone field by setting
 24 ASSIGNING_TMSI_ZONE_LEN_{s-p} to TMSI_ZONE_LEN_r,
- 25 • The mobile station shall store the assigning TMSI zone number by setting the
 26 ASSIGNING_TMSI_ZONE_LEN_{s-p} least significant octets of
 27 ASSIGNING_TMSI_ZONE_{s-p} to TMSI_ZONE_r, and
- 28 • The mobile station shall store the TMSI code by setting TMSI_CODE_{s-p} to
 29 TMSI_CODE_r.

30 The mobile station shall set the TMSI expiration time by setting TMSI_EXP_TIME_{s-p}
 31 to TMSI_EXP_TIME_r. The mobile station shall disable the full-TMSI timer. The
 32 mobile station shall then respond with a *TMSI Assignment Completion Message*
 33 within T_{56m} seconds.

34 | **23.24 Unlock Order:** After receiving this order, the mobile station is no longer locked.
 35 The mobile station should notify the user that the locked condition has been removed.
 36 The mobile station shall enter the *System Determination Substate of the Mobile Station*
 37 *Initialization State* with an *unlock indication* (see 2.6.1.1).

38 | **24.25 User Zone Reject Message**

39 | **9. Base Station Reject Order:**

- 1 • If $\text{ORDQ}_F = '00000001'$, the mobile station shall send a *Security Mode Request*
 2 Message with the *ENC_SIC_H* field included in it. If the mobile reeeives two *Base*
 3 *Station Reject Orders* without successfully decrypting any encrypted messages
 4 from the base station between the orders, the mobile station shall set
 5 $\text{REG_ENCRYPT_RESYNC}$ to YES and enter the *System Determination Substate*
 6 with an encryption failure indication.

7 The mobile station shall ignore all other messages and orders.

8 2.6.2.5 Mobile Station Origination Operation

9 The *Mobile Station Origination Operation* is performed when the mobile station is directed by
 10 the user to initiate a call, or if the *Mobile Station Idle State* is entered with NDSS_ORIG_S
 11 enabled.

12 If the mobile station is directed by the user to initiate a call, the mobile station shall
 13 perform the following:

- 14 • If PACA_S is equal to enabled, the mobile station shall set PACA_S to disabled and
 15 PACA_CANCEL to '0', shall disable the PACA state timer, and should indicate to the
 16 user that the PACA call has been canceled.
- 17 • The mobile station shall set CURR_ACC_MSG_SEQ to NULL.
- 18 • The mobile station shall set SYNC_ID_S to NULL if the mobile station is currently in a
 19 different SID, NID, or CDMA Channel than where the SYNC_ID_S was stored.

20 The mobile station shall enter the *Update Overhead Information Substate* of the *System*
 21 *Access State* (see 2.6.3) with an origination indication within T_{33m} seconds.

22 2.6.2.6 Mobile Station Message Transmission Operation

23 Support of this operation is optional. If the mobile station supports the *Mobile Station*
 24 *Message Transmission Operation*, the operation is performed when the user directs the
 25 mobile station to transmit a *Data Burst Message*, or when the mobile station detects a
 26 change in hook status since the last time when the mobile station sent hook status
 27 information and the mobile station supports the *Device Information Message* on the r-csch.

28 If the mobile station supports this operation, the mobile station shall set
 29 CURR_ACC_MSG_SEQ to NULL.

30 If the mobile station supports this operation and the operation is performed when the user
 31 directs the mobile station to transmit a *Data Burst Message*, the mobile station shall enter
 32 the *Update Overhead Information Substate* of the *System Access State* (see 2.6.3.2) with a
 33 message transmission indication within T_{33m} seconds.

34 If the mobile station supports this operation and the operation is performed when the
 35 mobile station detects a change in hook status since the last time when the mobile station
 36 sent hook status information, the mobile station shall enter the *Update Overhead*
 37 *Information Substate* of the *System Access State* (see 2.6.3.2) with a hook status indication
 38 within T_{33m} seconds.

1 2.6.2.7 Mobile Station Power-Down Operation

2 The *Mobile Station Power-Down Operation* is performed when the user directs the mobile
 3 station to power down.

4 The mobile station shall update stored parameters and perform other registration
 5 procedures as specified in 2.6.5.5.2.4.

6 If no power-down registration is performed (see 2.6.5.5.2.4), the mobile station may power
 7 down.

8 2.6.2.8 Mobile Station PACA Cancel Operation

9 The *Mobile Station PACA Cancel Operation* is performed when the user directs the mobile
 10 station to cancel a PACA call.

11 If PACAs is equal to enabled, the mobile station shall perform the following:

- 12 • The mobile station shall set PACAs to disabled.
- 13 • The mobile station shall set PACA_CANCEL to '0', if PACA_CANCEL is equal to '1'.
- 14 • The mobile station shall disable the PACA state timer.
- 15 • The mobile station should indicate to the user that the PACA call has been canceled.
- 16 • The mobile station shall set CURR_ACC_MSG_SEQ to NULL.
- 17 • The mobile station shall enter the *Update Overhead Information Substate* of the
 System Access State (see 2.6.3) with a PACA cancel indication within T_{33m} seconds.

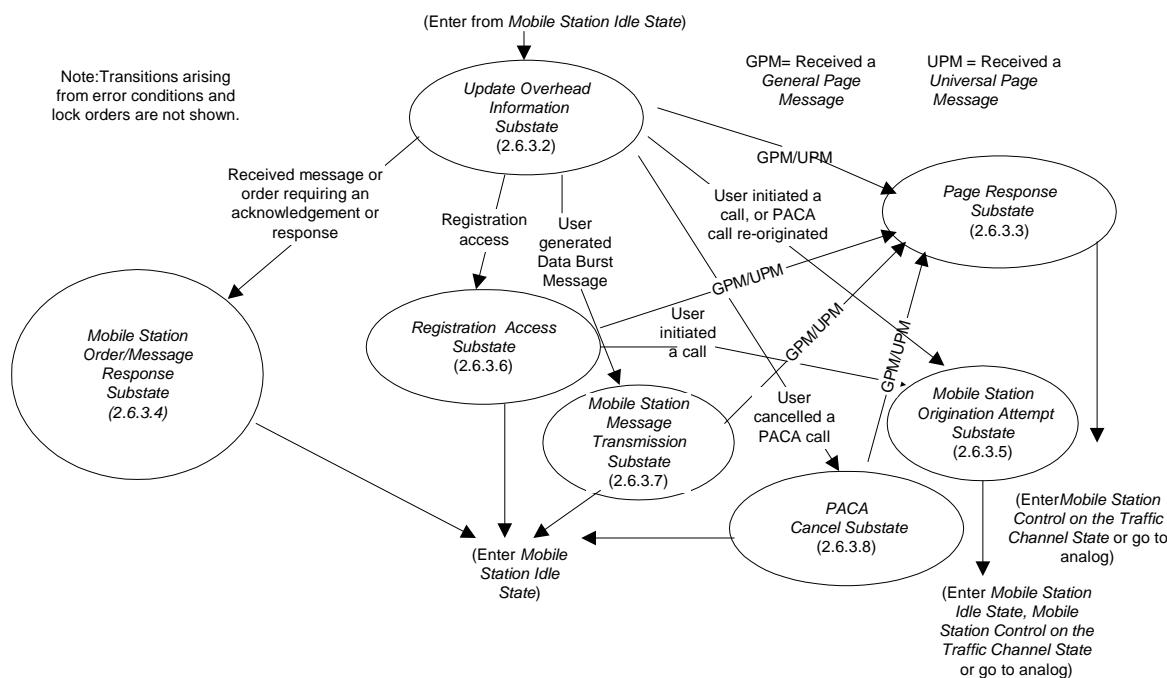
19 2.6.3 System Access State

20 In this state, the mobile station sends messages to the base station on the r-csch and
 21 receives messages from the base station on the f-csch.

22 As illustrated in Figure 2.6.3-1, the *System Access State* consists of the following substates:

- 23 • *Update Overhead Information Substate* - In this substate, if the base station supports
 the Primary Broadcast Control Channel for Spreading Rate 1 or if both the base
 station and mobile station supports the Primary Broadcast Control Channel for
 Spreading Rate 3 and if the protocol revision level in use is greater than six, the
 mobile station will monitor the [Primary](#) Broadcast Control Channel until it has
 received a current set of overhead messages; otherwise, the mobile station will
 monitor the Paging Channel until it has a current set of overhead messages.
- 30 • *Mobile Station Origination Attempt Substate* - In this substate, the mobile station
 sends an *Origination Message* to the base station.
- 32 • *Page Response Substate* - In this substate, the mobile station sends a *Page*
 Response Message to the base station.
- 34 • *Mobile Station Order/Message Response Substate* - In this substate, the mobile
 station sends a response to a message received from the base station.

- 1 • *Registration Access Substate* - In this substate, the mobile station sends a
2 *Registration Message* to the base station.
- 3 • *Mobile Station Message Transmission Substate* - In this substate, the mobile station
4 sends a *Data Burst Message* or a *Device Information Message* to the base station.
- 5 • *PACA Cancel Substate* - In this substate, the mobile station sends a *PACA Cancel*
6 *Message* to the base station.

**Figure 2.6.3-1. System Access State**

2.6.3.1 Access Procedures

2.6.3.1.1 Access Attempts

If the mobile station monitors the Paging Channel, the mobile station transmits on the Access Channel using a random access procedure. Many parameters of the random access procedure are supplied by the base station in the *Access Parameters Message*. The random access procedure is described in [4] and [3].

If the mobile station monitors the Forward Common Control Channel/ Primary Broadcast Control Channel, the mobile station transmits on the Enhanced Access Channel using a random access procedure. Many parameters of the random access procedure are supplied by the base station in the *Enhanced Access Parameters Message*.

1 If Layer 3 receives an indication from Layer 2 that the system access is denied, the mobile
2 station shall update its registration variables using SID_S, NID_S, REG ZONE_S, and
3 ZONE TIMER_S that were stored from the first base station to which the mobile station sent
4 an Access Probe, as specified in 2.6.5.5.3.2, and enter the *System Determination Substate* of
5 the *Mobile Station Initialization State* with an access denied indication (see 2.6.1.1).

6 If Layer 3 receives an indication from Layer 2 that the system is lost, the mobile station
7 shall update its registration variables using SID_S, NID_S, REG ZONE_S, and ZONE TIMER_S
8 that were stored from the first base station to which the mobile station transmitted an
9 Access Probe, as specified in 2.6.5.5.3.2 and enter the *System Determination Substate* of the
10 *Mobile Station Initialization State* with a system lost indication (see 2.6.1.1)

11 2.6.3.1.2 Reserved

12 2.6.3.1.3 Handoffs

13 While in the *System Access State*, the mobile station shall continue its pilot search
14 (see 2.6.3.1.3.1), and may perform access handoffs (see 2.6.3.1.3.2) and/or access probe
15 handoffs (see 2.6.3.1.3.3).

16 —If the mobile station performs access handoffs and/or access probe handoffs, the mobile
17 station shall maintain the following variables:

- 18 • CURRENT_ACTIVE_PILOT_S
- 19 • PREVIOUS_ACTIVE_PILOT_S
- 20 • FIRST_ACTIVE_PILOT_S

21 Upon entering the *System Access State* the mobile station shall set
22 CURRENT_ACTIVE_PILOT_S, PREVIOUS_ACTIVE_PILOT_S and FIRST_ACTIVE_PILOT_S to
23 NULL. Prior to starting an access attempt, the mobile station shall set
24 CURRENT_ACTIVE_PILOT_S and PREVIOUS_ACTIVE_PILOT_S to NULL. When the mobile
25 station selects a base station for transmission of an access probe, the mobile station shall
26 proceed as follows:

- 27 • If CURRENT_ACTIVE_PILOT_S is not the same as the pilot of the selected base
28 station, the mobile station shall set PREVIOUS_ACTIVE_PILOT_S to the value of
29 CURRENT_ACTIVE_PILOT_S.
- 30 • The mobile station shall set CURRENT_ACTIVE_PILOT_S to the identity of the pilot
31 corresponding to the selected base station.
- 32 • If FIRST_ACTIVE_PILOT_S is NULL, the mobile station shall set
33 FIRST_ACTIVE_PILOT_S to the value of CURRENT_ACTIVE_PILOT_S.

34 Before the mobile station transmits an access probe to a new base station on the Access
35 Channel, the mobile station shall update parameters based on the *System Parameters*
36 Message, the *Access Parameters Message* and the *Extended System Parameters Message* on
37 the associated new Paging Channel and process parameters from the messages (see
38 2.6.2.2.1, 2.6.2.2.2, and 2.6.2.2.5).

1 Before the mobile station transmits an access probe to a new base station on the Enhanced
 2 Access Channel, the mobile station shall update parameters based on the *ANSI-41 System*
 3 *Parameters Message*, the *Enhanced Access Parameters Message*, and the *MC-RR System*
 4 *Parameters Message* on the associated new Primary Broadcast Control Channel and process
 5 parameters from the messages (see 2.6.2.2.13, 2.6.2.2.14, and 2.6.2.2.15).

6 If the mobile station monitors the Paging Channel, the mobile station shall update
 7 parameters based on the *Neighbor List Message*, the *Extended Neighbor List Message*, or the
 8 *General Neighbor List Message* on the associated new Paging Channel and process
 9 parameters from the message (see 2.6.2.2.3, 2.6.2.2.7, and 2.6.2.2.8).

10 If the mobile station monitors the Forward Common Control Channel/ Primary Broadcast
 11 Control Channel, the mobile station shall update parameters based on the *Universal*
 12 *Neighbor List Message* on the associated new Primary Broadcast Control Channel and
 13 process parameters from the message (see 2.6.2.2.17).

14 If the mobile station receives the *User Zone Identification Message* or the *Private Neighbor*
 15 *List Message*, the mobile station shall update parameters based on these messages on the
 16 associated new Paging Channel or Primary Broadcast Control Channel and process
 17 parameters from the messages (see 2.6.2.2.9 and 2.6.2.2.10). If the mobile station receives
 18 a *Global Service Redirection Message* (see 2.6.2.2.6) which directs the mobile station away
 19 from the new base station, the mobile station shall not access the new base station. If the
 20 mobile station receives an *Extended Global Service Redirection Message* (see 2.6.2.2.11)
 21 which directs the mobile station away from the new base station, the mobile station shall
 22 not access the new base station. The mobile station shall process these messages only once
 23 after each access handoff.

24 2.6.3.1.3.1 Pilot Search

25 The following sets of pilot offsets are defined for a mobile station in the *System Access State*.
 26 Each pilot offset is a member of only one set.

- 27 • Active Set: The pilot offset of the Forward CDMA Channel whose Paging Channel or
 28 Forward Common Control Channel/ Primary Broadcast Control Channel is being
 29 monitored.
- 30 • Neighbor Set: The pilots that are not currently in the Active Set and are likely
 31 candidates for access handoff or access probe handoff. The members of the
 32 Neighbor Set are specified in the *Neighbor List Message*, the *Extended Neighbor List*
 33 *Message*, and the *General Neighbor List Message on the Paging Channel*. The
 34 members of the Neighbor Set are specified in the *Universal Neighbor List Message* on
 35 the Primary Broadcast Control Channel.
- 36 • Remaining Set: The set of all possible pilot offsets in the current system (integer
 37 multiples of PILOT_INC_S) on the current CDMA Frequency Assignment, excluding
 38 the pilots in the Neighbor Set and the Active Set.

39 2.6.3.1.3.2 Access Handoff

40 The mobile station is permitted to perform an access handoff to use the Paging Channel
 41 with the best pilot strength and an associated Access Channel. The mobile station is

1 permitted to perform an access handoff to use the Forward Common Control Channel with
 2 the best pilot strength and an associated Enhanced Access Channel. The mobile station is
 3 permitted to perform an access handoff when waiting for a response from the base station
 4 or before sending a response to the base station. An access handoff is permitted after an
 5 access attempt while the mobile station is in the *Page Response Substate* or the *Mobile*
 6 *Station Origination Attempt Substate*.

7 When the mobile station declares a loss of the Paging Channel or the Forward Common
 8 Control Channel while waiting for a response from the base station in the *Page Response*
 9 *Substate* or in the *Mobile Station Origination Attempt Substate*, the mobile station shall
 10 perform an access handoff, if all of the following conditions hold:

- 11 • The pilot corresponding to the new base station is in the list ACCESS_HO_LIST,
- 12 • ACCESS_HOs is equal to ‘1’, and
- 13 • The mobile station is not already in the process of performing an access attempt.

14 When the mobile station declares a loss of the Paging Channel or the Forward Common
 15 Control Channel, after receiving a message but before responding to that message while in
 16 the *Page Response Substate* or in the *Mobile Station Origination Attempt Substate*, the mobile
 17 station shall perform an access handoff if the following conditions hold:

- 18 • The pilot corresponding to the new base station is in the list ACCESS_HO_LIST,
- 19 • ACCESS_HOs is equal to ‘1’,
- 20 • ACCESS_HO_MSG_RSPs is equal to ‘1’, and
- 21 • The mobile station is not already in the process of performing an access attempt.

22 When the mobile station declares an insufficiency of the Paging Channel³ or the Forward
 23 Common Control Channel, while waiting for a response from the base station in the *Page*
 24 *Response Substate* or in the *Mobile Station Origination Attempt Substate*, the mobile station
 25 may perform an access handoff if all of the following conditions hold:

- 26 • The pilot corresponding to the new base station is in the list ACCESS_HO_LIST,
- 27 • ACCESS_HOs is equal to ‘1’, and
- 28 • The mobile station is not already in the process of performing an access attempt.

29 When the mobile station declares an insufficiency of the Paging Channel⁴ or the Forward
 30 Common Control Channel, after receiving a message but before responding to that message
 31 while in the *Page Response Substate* or in the *Mobile Station Origination Attempt Substate*,
 32 the mobile station may perform an access handoff if all of the following conditions hold:

³ Insufficiency of the Paging Channel and the Forward Common Control Channel is implementor-defined.

⁴ Insufficiency of the Paging Channel and the Forward Common Control Channel is implementor-defined.

- 1 • The pilot corresponding to the new base station is in the list ACCESS_HO_LIST,
- 2 • ACCESS_HOs is equal to '1',
- 3 • ACCESS_HO_MSG_RSPs is equal to '1', and
- 4 • The mobile station is not already in the process of performing an access attempt.

5 If ACCESS_PROBE_HOs is equal to '0' and ACCESS_HOs is equal to '1', and the mobile
 6 station declares a loss of the Paging Channel or the Forward Common Control Channel
 7 during an access attempt, after sending at least one complete access probe, the mobile
 8 station may monitor other Paging Channels or the Forward Common Control Channels
 9 which are in ACCESS_HO_LIST for T42m seconds after the loss of the Paging Channel or
 10 the Forward Common Control Channel on which the access attempt was made⁵.

11 2.6.3.1.3.3 Access Probe Handoff

12 The mobile station is permitted to perform an access probe handoff when the mobile station
 13 is in the *Page Response Substate* or the *Mobile Station Origination Attempt Substate*.

14 The mobile station may perform an access probe handoff during an access attempt to a
 15 pilot in ACCESS_HO_LIST when the message being sent is the *Origination Message* or the
 16 *Page Response Message*, if all of the following conditions hold:

- 17 • ACCESS_PROBE_HOs is equal to '1',
- 18 • The mobile station is in the *Page Response Substate* or the *Mobile Station Origination*
 Attempt Substate, and
- 20 • The mobile station has performed fewer than (MAX_NUM_PROBE_HOs +1) access
 probe handoffs during the current access attempt.

22 The mobile station may also perform an access probe handoff during an access attempt to a
 23 pilot in ACCESS_HO_LIST when the message being sent is a message other than the
 24 *Origination Message* or the *Page Response Message*, if all of the preceding conditions hold
 25 and ACC_PROBE_HO_OTHER_MSGs is equal to '1'.

26 The mobile station may also perform an access probe handoff during an access attempt to a
 27 pilot not in ACCESS_HO_LIST when the message being sent is the *Origination Message* or
 28 the *Page Response Message*, if all of the following conditions hold:

- 29 • ACC_HO_LIST_UPDs is equal to '1',
- 30 • ACCESS_PROBE_HOs is equal to '1',
- 31 • The new pilot is stronger than any pilot in ACCESS_HO_LIST,
- 32 • The new pilot has the corresponding ACCESS_HO_ALLOWED field in the
 NGHBR_REC equal to '1',

⁵ The mobile station would be waiting for a response to the message transmitted in the access probe.

- Inclusion of the new pilot in ACCESS_HO_LIST does not cause the Access Channel or Enhanced Access Channel message to exceed the maximum capsule size,
- Inclusion of the new pilot in ACCESS_HO_LIST does not cause the number of members to exceed N13m,
- The mobile station is in the *Page Response Substate* or the *Mobile Station Origination Attempt Substate*, and
- The mobile station has performed fewer than $(\text{MAX_NUM_PROBE_HO}_S + 1)$ access probe handoffs during the current access attempt.

The mobile station may also perform an access probe handoff during an access attempt to a pilot not in ACCESS_HO_LIST when the message being sent is a message other than the *Origination Message* or the *Page Response Message*, if all of the preceding conditions hold and ACC_PROBE_HO_OTHER_MSG_S is equal to '1'.

If the above conditions are met, the mobile station may perform an access probe handoff when the mobile station declares a loss of the Paging Channel or Forward Common Control Channel (see [2.6.2.1.1.4](#) [2.6.3.1.8](#)); the mobile station may also perform an access probe handoff after getting an indication that the TA timer expired (see 2.1.1.2.2 of [4]) and the mobile station declares an insufficiency of the Paging Channel⁶ or the Forward Common Control Channel.

If the mobile station performs an access probe handoff, the mobile station shall suspend the access attempt on the old pilot and shall restart the access attempt on the new pilot (*i.e.* starting with the first probe of the first probe sequence of the access sub-attempt), as specified in 2.1.1.2.2 of [4]. The mobile station shall record the identity of the pilots to which access probes have been transmitted within the current access attempt.

The mobile station shall not reset its access probe handoff count until the access attempt ends.

Layer 3 shall send an L2-Supervision.Request primitive to Layer 2 to cancel the access attempt if the length of the message to be sent exceeds MAX_CAP_SIZE of the new base station. The mobile station may monitor other Paging Channels or Forward Common Control Channels which are in ACCESS_HO_LIST for T42m seconds after aborting the access attempt⁷.

[2.6.3.1.4](#) System Access State Exit Procedures

Upon exiting the *System Access State*, the mobile station shall direct Layer 2 to cancel (see 2.1.1.2.2 of [4]) any access attempt in progress and discard the associated message. The mobile station shall then disable the *System Access State* timer.

⁶ Insufficiency of the Paging Channel and the Forward Common Control Channel is implementor-defined.

⁷ The mobile station would be waiting for a response to the message transmitted in the access probe.

1 2.6.3.1.5 Reserved

2 2.6.3.1.6 Full-TMSI Timer

3 Whenever the mobile station sends its full TMSI, the mobile station enables a timer, called
 4 the full-TMSI timer. If the full-TMSI timer expires, the mobile station deletes the TMSI by
 5 setting all of the bits in the TMSI_CODE_{s-p} field to '1'.

6 The mobile station shall maintain the full-TMSI timer. The mobile station shall provide a
 7 means for enabling or disabling the full-TMSI timer.

8 If the mobile station sends a message with an address including the
 9 ASSIGNING_TMSI_ZONE_{s-p} and the full-TMSI timer is disabled, the mobile station shall
 10 enable the full-TMSI timer with a duration equal to $T_{69m} + 2.56 \times 2^i$ seconds where i is
 11 equal to SLOT_CYCLE_INDEX_S.

12 2.6.3.1.7 Monitoring Pilots

13 The mobile station assists the base station in the Traffic Channel assignment process by
 14 monitoring and reporting (see 2.1.1.4.1.2 of [4]) the pilot strength of the pilot in the mobile
 15 station's Paging Channel or Forward Common Control Channel Active Set (see 2.6.3.1.3.1).
 16 The mobile station can also monitor and report (see 2.1.1.4.1.2 of [4]) other pilots on the
 17 same frequency; in such cases, the mobile station shall create ACCESS_HO_LIST and
 18 OTHER_REPORTED_LIST and shall monitor the pilots on those lists, if any.

19 For each monitored pilot, the mobile station shall record the pilot PN phase and the pilot
 20 strength PS, using the most recent measurements from the searcher element (see 2.2.2.1 of
 21 [2]), as they become available. The mobile station shall identify each pilot through its pilot
 22 PN phase (the phase of the pilot PN sequence, in units of one chip, relative to the zero offset
 23 pilot PN sequence of the pilot (see 2.6.6.2.4)). The mobile station shall determine the pilot
 24 strength, PS, as specified in 2.6.6.2.2.

25 2.6.3.1.7.1 Generation of the Initial Access Handoff List

26 ACCESS_HO_LIST is created immediately before transmitting the first access probe after
 27 entering the *System Access State*. When it is created, ACCESS_HO_LIST is defined as a set
 28 of at most N_{13m} pilots, having the greatest pilot strength in comparison with other
 29 qualifying pilots and for which all of the following apply:

- 30 • The strength of each member exceeds T_ADD.
- 31 • Each member, other than the Active Set pilot, has the corresponding
 32 ACCESS_HO_ALLOWED field in the NGHBR_REC equal to '1'.
- 33 • The Active Set pilot that the mobile station monitors when the mobile station enters
 34 the *System Access State* is a member.
- 35 • All members can be contained in the Access Channel or Enhanced Access Channel
 36 message without exceeding the maximum capsule size.

1 2.6.3.1.7.2 Update of the Access Handoff List

2 When the mobile station performs an access probe handoff to a pilot which was not
 3 previously included in ACCESS_HO_LIST (see 2.6.3.1.3.3), it adds the pilot to
 4 ACCESS_HO_LIST.

5 If ACC_HO_LIST_UPD_s is equal to '1', the mobile station can update ACCESS_HO_LIST, as
 6 follows:

- 7 • The mobile station can add one or more new pilots other than the Active Set pilot to
 8 ACCESS_HO_LIST before transmitting an access probe.
- 9 • The mobile station can also drop from ACCESS_HO_LIST pilots to which access
 10 probes have not been transmitted since entering the *System Access State* and whose
 11 strength have fallen below T_ADD.

12 When it is updated before transmitting a subsequent access probe, ACCESS_HO_LIST is
 13 defined as a set of at most N_{13m} pilots, having the greatest pilot strength in comparison
 14 with other qualifying pilots and for which all of the following apply:

- 15 • The strength of each member to which access probes have not been transmitted
 16 exceeds T_ADD.
- 17 • Each member other than the pilot to which the first access probe in the System
 18 Access State was transmitted has the corresponding ACCESS_HO_ALLOWED field
 19 in the NGHBR_REC equal to '1'.
- 20 • The Active Set pilot to which the next access probe is to be transmitted is a member.
- 21 • All pilots to which access probes have been transmitted since entering the *System*
 22 *Access State* are members.
- 23 • All members can be contained in the Access Channel or Enhanced Access Channel
 24 message without exceeding the maximum capsule size.

25 2.6.3.1.7.3 Generation of the Other Reported List

26 OTHER_REPORTED_LIST (specified by NUM_ADD_PILOTS and NUM_AUX_PILOTS, see
 27 2.1.1.4.1.5.1 of [4]) is defined as a set of no more than N_{13m} minus the number of pilots in
 28 ACCESS_HO_LIST pilots, having the greatest pilot strength in comparison with other
 29 qualifying pilots and for which all of the following apply:

- 30 • The strength of each member exceeds T_ADD.
- 31 • No member is included in ACCESS_HO_LIST.
- 32 • All members can be contained in the Access Channel or Enhanced Access Channel
 33 message without exceeding the maximum capsule size.

34 2.6.3.1.7.4 Update of OTHER_REPORTED_LIST

35 Before transmitting each access probe, the mobile station shall generate
 36 OTHER_REPORTED_LIST according to section 2.6.3.1.7.3, using the most recent pilot
 37 strength information available from its searcher element (see 2.2.2.1 of [2]). If the mobile

1 station updates ACCESS_HO_LIST before transmitting an access probe, it shall update
 2 OTHER_REPORTED_LIST after updating ACCESS_HO_LIST.

3 2.6.3.1.8 Paging Channel and Forward Common Control Channel/ Primary Broadcast
 4 Control Channel Monitoring

5 When in the *System Access State*, the mobile station shall monitor the Paging Channel or
 6 the Forward Common Control Channel/ Primary Broadcast Control Channel at all times.

7 The mobile station shall set a timer for T_{72m} seconds, when it begins to monitor the Paging
 8 Channel or the Forward Common Control Channel/ Primary Broadcast Control Channel and whenever it gets an indication that a valid message was received on the Paging Channel
 9 or the Forward Common Control Channel/ Primary Broadcast Control Channel, whether
 10 addressed to the mobile station or not (see 2.1.2.3.2 of [4]).

12 If the T_{72m} timer expires:

- 13 • The mobile station shall first finish transmitting the access probe in progress, if any.
- 14 • ~~The mobile station shall declare a loss of the Paging Channel or the Forward~~
 15 ~~Common Control Channel/ Primary Broadcast Control Channel if:~~
 - 16 — ~~ACCESS_HO_s is equal to '1' and ACCESS_HO_LIST contains more than one~~
 17 ~~pilot,~~
 - 18 — ~~ACC_HO_LIST_UPD_s is equal to '1', and Access Probe Handoff is supported by~~
 19 ~~the mobile station, or~~
 - 20 — ~~ACC_HO_LIST_UPD_s is equal to '0' and the following conditions are met:~~
 - 21 + ~~ACCESS_HO_LIST contains more than one pilot, and~~
 - 22 + ~~Access Probe Handoff is supported by the mobile station and is enabled by~~
 23 ~~the base station.~~
- 24 • ~~If by declaring a loss of the Paging Channel or the Forward Common Control~~
 25 ~~Channel, the eligibility requirements for performing access handoff are met (see~~
 26 ~~2.6.3.1.3.2), then the mobile station shall declare a loss of the Paging Channel or~~
 27 ~~the Forward Common Control Channel, and perform an access handoff if the~~
 28 ~~requirements in 2.6.3.1.3.2 are met. If by declaring a loss of the Paging Channel or~~
 29 ~~the Forward Common Control Channel, the eligibility requirements for performing~~
 30 ~~access probe handoff are met (see 2.6.3.1.3.3), then the mobile station may~~
 31 ~~declare a loss of the Paging Channel or the Forward Common Control Channel, and~~
 32 ~~perform an access probe handoff if the requirements in 2.6.3.1.3.3 are met.~~ If the
 33 mobile station performs an access handoff or an access probe handoff, the mobile
 34 station restarts the Paging Channel or the Forward Common Control Channel/
 35 Primary Broadcast Control Channel monitoring procedure for the new base station.

- If an access attempt was in progress when the timer expired and that access attempt had already been suspended and resumed previously (see below), the mobile station shall declare a loss of the Paging Channel⁸ or the Forward Common Control Channel and shall disable its transmitter.
- If an access attempt was in progress when the timer expired and that access attempt had not been suspended and resumed before and the mobile station does not perform access probe handoff, the mobile station shall declare a temporary econsider the loss of the Paging Channel or the Forward Common Control Channelas temporary, shall direct Layer 2 to suspend the access attempt (see 2.1.1.2.2 of [4]), and shall perform the following:
 - The mobile station shall set the timer to $(T_{40m}-T_{72m})$ seconds.
 - If the mobile station receives an indication that a valid message on the Paging Channel or the Forward Common Control Channel, whether addressed to the mobile station or not, was received (see 2.1.2.3.2 of [4]) prior to the expiration of the $(T_{40m}-T_{72m})$ timer, the mobile station shall re-enable the transmitter, shall direct Layer 2 to resume operation from the beginning of the interrupted access probe sequence of the access sub-attempt (see 2.1.1.2.2 of [4]), and shall transmit the first probe of the new access probe sequence immediately after re-enabling the transmitter.
 - If the $(T_{40m}-T_{72m})$ timer expires, the mobile station shall direct Layer 2 to cancel any access attempt (see 2.1.1.2.2 of [4]) and shall declare a loss of the Paging Channel or the Forward Common Control Channel/ Primary Broadcast Control Channel.
- If an access attempt was not in progress when the timer expired and the mobile station does not perform access handoff, the mobile station shall perform the following:
 - The mobile station shall set the timer to $(T_{40m}-T_{72m})$ seconds.
 - If the $(T_{40m}-T_{72m})$ timer expires, the mobile station shall declare a loss of the Paging Channel or the Forward Common Control Channel/ Primary Broadcast Control Channel.

2.6.3.2 Update Overhead Information Substate

In this substate, if the base station supports the Primary Broadcast Control Channel for Spreading Rate 1, or if both the mobile station and base station support Spreading Rate 3 on the common channels, then the mobile station shall monitor the Primary Broadcast Control Channel until it has received the current configuration messages; otherwise, the mobile station shall monitor the Paging Channel until it has received the current

⁸ Requirements for processing the loss of Paging Channel are given separately for each substate of the *System Access State*, in the sections describing the substates.

1 configuration messages. The mobile station compares sequence numbers to determine
 2 whether all of the configuration messages are up-to-date. To make sure it has the latest
 3 access parameters, the mobile station receives at least one message containing the
 4 ACC_MSG_SEQ field (except in case of a page response, since the initiating page contains
 5 ACC_MSG_SEQ), and waits, if necessary, for an *Access Parameters Message* or an *Enhanced*
 6 *Access Parameters Message*. In addition, if the mobile station is monitoring the Primary
 7 Broadcast Control Channel and SENDING_RAND_S is equal to '1', then it shall also wait for
 8 an *ANSI-41 RAND Message*.

9 Upon entering the *Update Overhead Information Substate*, the mobile station shall set the
 10 *System Access State* timer to a value of T41m seconds. The mobile station shall set PAGED
 11 to NO.

12 If the *System Access State* timer expires while in this substate, the mobile station shall
 13 enter the *System Determination Substate* of the *Mobile Station Initialization State* with a
 14 system lost indication (see 2.6.1.1).

15 If the mobile station declares a loss of the Paging Channel or the Primary Broadcast Control
 16 Channel (see [2.6.2.1.1.4](#) [2.6.3.1.8](#)), the mobile station shall perform the following:

- 17 • If PACA_S is equal to enabled, the mobile station shall set PACA_S to disabled and
 18 PACA_CANCEL to '[04](#)', shall disable the PACA state timer, and should indicate to the
 19 user that the PACA call has been canceled.
- 20 • The mobile station shall declare an access attempt failure and update its
 21 registration variables as specified in 2.6.5.5.3.2.
- 22 • The mobile station shall enter the *Mobile Station Idle State*.

23 If PACA_S is equal to enabled, the mobile station shall set PACA_CANCEL to '1' when the
 24 user directs the mobile station to cancel a PACA call.

25 If the mobile station receives any of the following messages, it shall process the message as
 26 follows:

- 27 1. *System Parameters Message*: The mobile station shall process the parameters from
 28 the message (see 2.6.2.2.1).
- 29 2. *Access Parameters Message*: The mobile station shall process the parameters from
 30 the message (see 2.6.2.2.2).
- 31 3. *Neighbor List Message*: The mobile station shall process the parameters from the
 32 message (see 2.6.2.2.3).
- 33 4. *CDMA Channel List Message*: The mobile station shall process the parameters from
 34 the message (see 2.6.2.2.4).
- 35 5. *Extended System Parameters Message*: The mobile station shall process the
 36 parameters from the message (see 2.6.2.2.5).
- 37 6. *Global Service Redirection Message*: The mobile station shall process the
 38 parameters from the message (see 2.6.2.2.6).

- 1 7. *Extended Neighbor List Message*: The mobile station shall process the parameters
2 from the message (see 2.6.2.2.7).
- 3 8. *General Neighbor List Message*: The mobile station shall process the parameters
4 from the message (see 2.6.2.2.8).
- 5 9. *Lock Until Power-Cycled Order*: The mobile station shall record the reason for the
6 *Lock Until Power-Cycled Order* in the mobile station's semi-permanent memory
7 ($LCKRSN_{P_{s-p}}$ equals the least-significant four bits of $ORDQ_r$). The mobile station
8 should notify the user of the locked condition. The mobile station shall then enter
9 the *System Determination Substate* of the *Mobile Station Initialization State* with a
10 lock indication (see 2.6.1.1), and shall not enter the *System Access State* again until
11 after the next mobile station power-up or until it has received an *Unlock Order*.
12 This requirement shall take precedence over any other mobile station requirement
13 specifying entry to the *System Access State*.
- 14 10. *General Page Message* or *Universal Page Message*: If $CURR_ACC_MSG_SEQ$ is equal
15 to NULL, the mobile station shall set $CURR_ACC_MSG_SEQ$ to $ACC_MSG_SEQ_r$.
16 The mobile station shall compare $CONFIG_MSG_SEQ_s$ to $CONFIG_MSG_SEQ_r$. If
17 the comparison results in a mismatch, the mobile station shall set
18 $CONFIG_MSG_SEQ_s$ to $CONFIG_MSG_SEQ_r$. The mobile station may ignore the
19 rest of the message. If this substate was not entered with an origination or page
20 response indication, the mobile station may also determine whether there is a page
21 match. If the mobile station attempts to determine whether there is a page match,
22 it shall use the procedure as defined in 2.6.2.3. If a match is declared, the mobile
23 station shall set PAGED to YES.
- 24 11. *User Zone Identification Message*: The mobile station shall process the parameters
25 from the message (see 2.6.2.2.9).
- 26 12. *Private Neighbor List Message*: The mobile station shall process the parameters from
27 the message (see 2.6.2.2.10).
- 28 13. *Extended Global Service Redirection Message*: The mobile station shall process the
29 parameters from the message (see 2.6.2.2.11).
- 30 14. *Extended CDMA Channel List Message*: The mobile station shall process the
31 parameters from the message (see 2.6.2.2.12).
- 32 15. *ANSI-41 System Parameters Message*: The mobile station shall process the
33 parameters from the message (see 2.6.2.2.13).
- 34 16. *MC-RR Parameters Message*: The mobile station shall process the parameters from
35 the message (see 2.6.2.2.14).
- 36 17. *Enhanced Access Parameters Message*: The mobile station shall process the
37 parameters from the message (see 2.6.2.2.15).
- 38 18. *ANSI-41 RAND Message*: The mobile station shall process the parameters from the
39 message (see 2.6.2.2.16).
- 40 19. *Universal Neighbor List Message*: The mobile station shall process the parameters
41 from the message (see 2.6.2.2.17).

1 If the mobile station receives a message which is not included in the above list, the mobile
 2 station shall ignore the message.

3 When all of the following conditions are met:

- 4 • the stored configuration parameters are current (see 2.6.2.2)
- 5 • CURR_ACC_MSG_SEQ_S and ACC_MSG_SEQ_S are equal and are not NULL, and
- 6 • if the mobile station is monitoring the Primary Broadcast Control Channel and
 7 SENDING_RAND_S is equal to '1', the *ANSI-41 RAND Message* has been received,

8 then the mobile station shall disable the *System Access State* timer and shall do one of
 9 the following:

- 10 • If PAGED is equal to YES, the mobile station shall determine whether the message
 resulting in the page match was received on the current Paging Channel or Forward
 Common Control Channel. If the message was received on the current Paging
 Channel or Forward Common Control Channel, the mobile station shall enter the
 Page Response Substate; otherwise, the mobile station shall enter the *Mobile Station
 Idle State*.
- 16 • If this substate was entered with a page response indication and the mobile station
 has not performed an access entry handoff, the mobile station shall determine
 whether the message resulting in the page match was received on the current
 Paging Channel or Forward Common Control Channel. If the message was received
 on the current Paging Channel or Forward Common Control Channel, the mobile
 station shall enter the *Page Response Substate*; otherwise, the mobile station shall
 enter the *Mobile Station Idle State*.
- 23 • If this substate was entered with a page response indication and the mobile station
 has performed an access entry handoff, the mobile station shall enter the *Page
 Response Substate*.
- 26 • If this substate was entered with a page response retransmission indication, the
 mobile station shall enter the *Page Response Substate*.
- 28 • If this substate was entered with an origination indication, the mobile station shall
 enter the *Mobile Station Origination Attempt Substate* with an origination indication.
- 30 • If this substate was entered with a PACA response indication, the mobile station
 shall enter the *Mobile Station Origination Attempt Substate* with a PACA response
 indication.
- 33 • If this substate was entered with an order/message response indication and the
 mobile station has not performed an access entry handoff, the mobile station shall
 determine whether the message resulting in the response was received on the
 current Paging Channel or Forward Common Control Channel. If the message was
 received on the current Paging Channel or Forward Common Control Channel, the
 mobile station shall enter the *Mobile Station Order/Message Response Substate*;
 otherwise, the mobile station shall discard the response and enter the *Mobile Station
 Idle State*.

- If this substate was entered with an order/message response indication and the mobile station has performed an access entry handoff, the mobile station shall enter the *Mobile Station Order/Message Response Substate*.
- If this substate was entered with a registration indication, the mobile station shall enter the *Registration Access Substate*.
- If this substate was entered with a message transmission indication, the mobile station shall enter the *Mobile Station Message Transmission Substate* with a message transmission indication.
- If this substate was entered with a hook status indication, the mobile station shall enter the *Mobile Station Message Transmission Substate* with a hook status indication.
- If this substate was entered with a PACA cancel indication, the mobile station shall enter the *PACA Cancel Substate*.

2.6.3.3 Page Response Substate

In this substate, the mobile station sends a *Page Response Message* in response to a mobile-station-addressed page from a base station. If a base station responds to the *Page Response Message* with an authentication request, the mobile station responds in this substate.

If a message received from the base station requires a Layer 2 acknowledgment and does not require a Layer 3 response, Layer 3 shall indicate to Layer 2 that no response is outstanding (see 2.1.1.2.2.1 of [4]).

If a message received from the base station requires a Layer 2 acknowledgment and also a Layer 3 response, Layer 3 shall indicate to Layer 2 that a response is outstanding (see 2.1.1.2.2.1 of [4]).

When transmitting a response to a message received from the base station, Layer 3 shall indicate to Layer 2 that the type of the message is a response (see 2.1.1.2.2.1 of [4]).

When transmitting an autonomous message (i.e., a message that is not sent as a response to a message received from the base station), Layer 3 shall indicate to Layer 2 that the type of the message is a request other than a registration request or a message transmission request (see 2.1.1.2.2.1 of [4]).

If the mobile station has a stored service configuration (that is, parameters conveyed by both the Service Configuration information record and the Non-negotiable Service Configuration information record, SYNC_ID_S is not equal to NULL, and USE_SYNC_ID_S is equal to '1', the mobile station may include the SYNC_ID field in the *Page Response Message* and, if included, shall set it to the 16-bit CRC computed over the entire stored service configuration as specified in 2.6.11 SYNC_ID_S corresponding to the stored service configuration.

Upon entering the *Page Response Substate*, the mobile station shall set RLGAIN_ADJ_S to '0000' and send a *Page Response Message*.

1 While in this substate, the mobile station shall monitor the Paging Channel or the Forward
 2 Common Control Channel. The mobile station may perform an access probe handoff or
 3 access handoff as described in 2.6.3.1.3.2 and 2.6.3.1.3.3. If the mobile station declares a
 4 loss of the Paging Channel or the Forward Common Control Channel (see [2.6.2.1.1.4](#)
 5 [2.6.3.1.8](#)) during an access attempt, the mobile station may perform an access probe
 6 handoff; otherwise, it shall declare an access attempt failure and shall perform the following
 7 actions:

- 8 • The mobile station shall update its registration variables as specified in 2.6.5.5.3.2,
- 9 • If the mobile station is monitoring the Paging Channel, the mobile station shall set
 10 SYS_PAR_MSG_SEQ_S and ACC_MSG_SEQ_S to NULL,
- 11 • If the mobile station is monitoring the Forward Common Control Channel, the
 12 mobile station shall set MC_RR_PAR_MSG_SEQ_S and ACC_MSG_SEQ_S to NULL.
- 13 • If PACA_S is equal to enabled, the mobile station shall set PACA_S to disabled and
 14 PACA_CANCEL to '0', shall disable the PACA state timer, and should indicate to the
 15 user that the PACA call has been canceled.
- 16 • The mobile station shall disable its transmitter, and
- 17 • The mobile station shall enter the *Mobile Station Idle State*.

18 If the mobile station receives confirmation of delivery of any message sent by the mobile
 19 station in this substate, the mobile station shall perform an access handoff if all of the
 20 following conditions hold:

- 21 • The mobile station declares a loss of the Paging Channel or the Forward Common
 22 Control Channel, and
- 23 • The mobile station is permitted to perform an access handoff (see 2.6.3.1.3.2), and
 24 there are pilots other than the active pilot in the access handoff list (see 2.6.3.1.3.2).

25 If the mobile station declares a loss of the Paging Channel or the Forward Common Control
 26 Channel and does not perform an access handoff, the mobile station shall perform the
 27 following:

- 28 • If the mobile station is monitoring the Paging Channel, the mobile station shall set
 29 SYS_PAR_MSG_SEQ_S and ACC_MSG_SEQ_S to NULL.
- 30 • If the mobile station is monitoring the Forward Common Control Channel, the
 31 mobile station shall set MC_RR_PAR_MSG_SEQ_S and ACC_MSG_SEQ_S to NULL.
- 32 • If PACA_S is equal to enabled, the mobile station shall set PACA_S to disabled and
 33 PACA_CANCEL to 0, shall disable the PACA state timer, and should indicate to the
 34 user that the PACA call has been canceled,
- 35 • The mobile station shall disable its transmitter, and
- 36 • The mobile station shall enter the *Mobile Station Idle State*.

37 If PACA_S is equal to enabled, the mobile station shall set PACA_CANCEL to '1' when the
 38 user directs the mobile station to cancel a PACA call.

If the mobile station receives confirmation of delivery of the *Page Response Message* sent in this substate, the mobile station shall update its registration variables with respect to the base station to which the first access probe was transmitted after entering the *System Access State*, as specified in 2.6.5.5.3.1.

If the *System Access State* timer expires while in this substate, the mobile station shall perform the following:

- If PACAs is equal to enabled, the mobile station shall set PACAs to disabled and PACA_CANCEL to '0', shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.
- If the mobile station is monitoring the Paging Channel, the mobile station shall set SYS_PAR_MSG_SEQs and ACC_MSG_SEQs to NULL, and shall enter the *Mobile Station Idle State*.
- If the mobile station is monitoring the Forward Common Control Channel, the mobile station shall set $\text{MC_RR_PAR_MSG_SEQs}$ and ACC_MSG_SEQs to NULL and enter the *Mobile Station Idle State*.

The mobile station shall set and disable the *System Access State* timer as follows:

- The mobile station shall disable the timer whenever it begins an access attempt.
- The mobile station shall set the timer to T_{42m} seconds whenever it ends an access attempt.
- The mobile station shall disable the timer whenever it exits the *System Access State*.

If the mobile station receives a *Channel Assignment Message* or the *Extended Channel Assignment Message*, Layer 3 shall send a *dedicated channel assignment* indication to Layer 2 (see 2.1.2.1.2 of [4]). If the mobile station has not received confirmation of delivery of the *Page Response Message*, before receiving the *Channel Assignment Message* or the *Extended Channel Assignment Message*, the mobile station shall update its registration variables with respect to the base station to which the first access probe was transmitted after entering the *System Access State*, as specified in 2.6.5.5.3.1.

If the mobile station is to exit the *System Access State* as a result of processing Layer 3 fields of a message requiring an acknowledgment, the mobile station shall exit the *System Access State* after Layer 3 receives an indication from Layer 2 that the acknowledgment to the message has been sent and acknowledged.

If Layer 3 receives a message other than a *Channel Assignment Message* or an *Extended Channel Assignment Message* with an indication from Layer 2 that an access attempt for a message being transmitted was not terminated as a result of processing the Layer 2 fields of the received message, the mobile station shall ignore the received message.

The following directed messages and orders can be received. If any field value of the message or order is outside its permissible range, the mobile station may send a *Mobile Station Reject Order* with ORDQ equal to '00000100' (message field not in valid range).

1. *Authentication Challenge Message*: The mobile station shall respond to the message as specified in 2.3.12.1.4, regardless of the value of AUTHs .

1 2. *Base Station Challenge Confirmation Order*: The mobile station shall respond to the
 2 message as specified in 2.3.12.1.5.

3 3. *Base Station Reject Order*:

- 4 • If $\text{ORDQ}_r = '00000001'$, the mobile station shall send a *Security Mode Request*
 5 *Message* with the ENC_SIG_H field included in it. If the mobile receives two *Base*
 6 *Station Reject Orders* without successfully decrypting any encrypted messages
 7 from the base station between the orders, the mobile station shall set
 8 $\text{REG_ENCRYPT_RESYNC}$ to YES and enter the *System Determination Substate*
 9 with an encryption failure indication

10 3.4. *Channel Assignment Message*: The mobile station shall process the message as
 11 follows:

- 12 • If ASSIGN_MODE_r equals '000', the mobile station shall perform the following
 13 actions:
- 14 – The mobile station shall set CH_IND_s to '01'.
- 15 – The mobile station shall store the frame offset ($\text{FRAME_OFFSET}_s =$
 16 FRAME_OFFSET_r), the message encryption mode indicator
 17 ($\text{ENCRYPT_MODE}_s = \text{ENCRYPT_MODE}_r$), and, if FREQ_INCL_r equals '1', the
 18 Frequency Assignment ($\text{CDMACH}_s = \text{CDMA_FREQ}_r$).
- 19 – The mobile station shall perform the following procedures in the order listed
 20 below:
- 21 + If $\text{D_SIG_ENCRYPT_MODE}_r$ is included, the mobile station shall perform
 22 the following:
- 23 o If $\text{D_SIG_ENCRYPT_MODE}_r$ is equal to '000', the mobile station shall
 24 set $\text{D_SIG_ENCRYPT_MODE}_s$ to $\text{C_SIG_ENCRYPT_MODE}_s$; otherwise,
 25 the mobile station shall set $\text{D_SIG_ENCRYPT_MODE}_s$ to
 26 $\text{D_SIG_ENCRYPT_MODE}_r$, ENC_KEY_s to the most recently generated
 27 CMEAKEY in the mobile station associated with the AUTHR of the
 28 *Page Response Message*, and $\text{EXT_ENCRYPT_SEQ[0]}$ and
 29 $\text{EXT_ENCRYPT_SEQ[1]}$ to $256 \times \text{ENC_SEQ_H}$ (the ENC_SEQ_H field
 30 in the *Page Response Message*).
- 31 ± If USE_NEW_KEY_r is not included, or is included and is set to '1', the
 32 mobile station shall use the session key generated at the most recent
 33 registration for encryption of signaling and user information. The mobile
 34 station shall store the session key in $\text{KEY}_s[\text{KEY_SEQ_NEW}_{s,p}]$. The
 35 mobile station shall store KEY_SIZE_r to KEY_SIZE_s . The mobile station
 36 shall then increment the variable $\text{KEY_SEQ_NEW}_{s,p}$ by one (modulo 16).
 37 If ENC_KEY_SIZE_r is included, the mobile station shall set
 38 ENC_KEY_SIZE_s to ENC_KEY_SIZE_r .
- 39 — If USE_NEW_KEY_r is included and is set to '0' then the mobile station shall
 40 use $\text{KEY}_s[\text{KEY_SEQ}_r]$ as the session key.

1 + If C SIG ENCRYPT MODE is included, the mobile station shall set
 2 C SIG ENCRYPT MODE_S to C SIG ENCRYPT MODE_r.

- 3 – The mobile station shall set SERV_NEG_S to disabled.
- 4 – If PACA_S is equal to enabled, the mobile station shall set PACA_S to disabled
 5 and PACA_CANCEL to ‘0’, shall disable the PACA state timer, and should
 6 indicate to the user that the PACA call has been canceled.
- 7 – The mobile station shall initialize CODE_CHAN_LIST as described in 2.6.8.
- 8 – The mobile station shall enter the *Traffic Channel Initialization Substate* of
 9 the *Mobile Station Control on the Traffic Channel State*.
- 10 • If ASSIGN_MODE_r equals ‘001’, the mobile station shall perform the following
 11 actions:
- 12 – If FREQ_INCL_r equals ‘1’, the mobile station shall perform the following:
- 13 + If the message requires acknowledgement, the mobile station shall wait
 14 until Layer 3 receives an indication from Layer 2 that the
 15 acknowledgement to the message has been sent and acknowledged.
- 16 + The mobile station shall set CDMACH_S to CDMA_FREQ_r, tune to the new
 17 Frequency Assignment, and measure the strength of each pilot listed in
 18 the assignment using the Neighbor Set search procedures specified in
 19 2.6.6.2.1 and 2.6.6.2.2.
- 20 – The mobile station shall set CONFIG_MSG_SEQ_S and ACC_MSG_SEQ_S to
 21 NULL (see 2.6.2.2) and shall set PILOT_PN_S to the pilot PN sequence offset of
 22 the strongest pilot in the list (PILOT_PN_r).
- 23 – If the mobile station has not stored configuration parameters for the Primary
 24 Paging Channel of the new base station, or if the stored information is not
 25 current (see 2.6.2.2), the mobile station shall set SYS_PAR_MSG_SEQ_S,
 26 NGHBR_LST_MSG_SEQ_S, EXT_NGHBR_LST_MSG_SEQ_S,
 27 GEN_NGHBR_LIST_MSG_SEQ_S, USER_ZONE_ID_MSG_SEQ_S,
 28 PRI_NGHBR_LST_MSG_SEQ_S, CHAN_LST_MSG_SEQ_S,
 29 EXT_CHAN_LST_MSG_SEQ_S, EXT_SYS_PAR_MSG_SEQ_S,
 30 GLOB_SERV_REDIR_MSG_SEQ_S, and EXT_GLOB_SERV_REDIR_MSG_SEQ_S
 31 to NULL.
- 32 – The mobile station shall set PAGE_CHAN_S to ‘1’ and PAGECH_S to the Primary
 33 Paging Channel. If the mobile station was monitoring Forward Common
 34 Control Channel, the mobile station shall set the PRAT_S to ‘00’. The mobile
 35 station shall then begin monitoring the Primary Paging Channel of the
 36 selected base station.
- 37 – If RESPOND_r is equal to ‘1’, the mobile station shall enter the *Update*
 38 *Overhead Information Substate* with a page response retransmission
 39 indication within T34m seconds after receiving the *Channel Assignment*
 40 *Message*.

- If RESPOND_r is equal to '0', the mobile station shall enter the *Mobile Station Idle State* within T_{34m} seconds after receiving the *Channel Assignment Message*.
- If ASSIGN_MODE_r equals '010', the mobile station shall perform the following actions:
 - If the mobile station does not support analog operation in the requested band class, the mobile station shall send a *Mobile Station Reject Order* with ORDQ field set to '00000110' (capability not supported by the mobile station) and shall remain in the *Page Response Substate*.
 - If the mobile station supports analog operation in the requested band class, the mobile station shall perform the following actions:
 - + If USE_ANALOG_SYS_r equals '1', the mobile station shall set SERVSYSS to SYS_A if ANALOG_SYS_r is equal to '0', or shall set SERVSYSS to SYS_B if ANALOG_SYS_r is equal to '1'.
 - + If PACAs is equal to enabled, the mobile station shall set PACAs to disabled and PACA_CANCEL to '0', shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.
 - + If RESPOND_r equals '0', the mobile station shall enter the analog Initialization Task with a wait-for-page indication (see 2.6.1). If RESPOND_r equals '1', the mobile station shall enter the analog Initialization Task with a page response indication (see 2.6.1).
- If ASSIGN_MODE_r equals '011', the mobile station shall perform the following actions:
 - If the mobile station does not support analog operation in the requested band class, the mobile station shall send a *Mobile Station Reject Order* with ORDQ field set to '00000110' (capability not supported by the mobile station) and remain in the *Page Response Substate*.
 - If the mobile station supports analog operation in the requested band class:
 - + If PACAs is equal to enabled, the mobile station shall set PACAs to disabled and PACA_CANCEL to '0', shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.
 - + If the analog channel type is '00', the mobile station shall store the system identification (SID_s = SID_r), voice mobile station attenuation code (VMAC_s = VMAC_r), voice channel number (ANALOG_CHAN_s = ANALOG_CHAN_r), SAT color code (SCC_s = SCC_r), and message encryption mode indicator (MEM_s = MEM_r), shall set DTX_s to '00' and shall enter the Confirm Initial Voice Channel Task (see 2.6.4.2) with a page response indication.
 - + If the analog channel type is not '00':

- o If the mobile station supports narrow analog mode, the mobile station shall store the system identification ($SID_S = SID_R$), voice mobile station attenuation code ($VMAC_S = VMAC_R$), voice channel number ($ANALOG_CHAN_S = ANALOG_CHAN_R$), message encryption mode indicator ($MEM_S = MEM_R$), analog channel type ($AN_CHAN_TYPE_S = AN_CHAN_TYPE_R$) and the digital SAT code ($DSCC_S = DSCC_MSB_R \times 4 + SCC_R$), shall set DTX_S to '00', and shall enter the Confirm Initial Narrow Analog Voice Channel Task (see 2.6.5.2A of [22]) with a page response indication.
- o If the mobile station does not support narrow analog mode, the mobile station shall send a *Mobile Station Reject Order* with the $ORDQ$ field set to '00000110' (capability not supported by the mobile station) and the mobile station shall remain in the *Page Response Substate* of the *System Access State*.
- If $ASSIGN_MODE_R$ equals '100', the mobile station shall perform the following actions:
 - The mobile station shall set CH_IND_S to '01'.
 - If $PACA_S$ is equal to enabled, the mobile station shall set $PACA_S$ to disabled and $PACA_CANCEL$ to '0', shall disable the $PACA$ state timer, and should indicate to the user that the $PACA$ call has been canceled.
 - If $GRANTED_MODE_R$ equals '00', and the multiplex option and radio configuration combination specified in the $DEFAULT_CONFIG$ field is not supported by the mobile station, the mobile station shall send a *Mobile Station Reject Order* with $ORDQ$ field set to '00000110' (capability not supported by the mobile station) and remain in the *Page Response Substate*.
 - If $FREQ_INCL_R$ equals '0', the mobile station shall perform the following actions:
 - + The mobile station shall store the frame offset ($FRAME_OFFSET_S = FRAME_OFFSET_R$), the message encryption mode indicator ($ENCRYPT_MODE_S = ENCRYPT_MODE_R$), the granted mode ($GRANTED_MODE_S = GRANTED_MODE_R$), and default configuration ($DEFAULT_CONFIG_S = DEFAULT_CONFIG_R$).
 - + The mobile station shall perform the following procedures in the order listed below:
 - o If D SIG ENCRYPT MODE_R is included, the mobile station shall perform the following:
 - ◊ If D SIG ENCRYPT MODE_R is equal to '000', the mobile station shall set D SIG ENCRYPT MODE_S to C SIG ENCRYPT MODE_S; otherwise, the mobile station shall set D SIG ENCRYPT MODE_S to D SIG ENCRYPT MODE_R, ENC KEY_S to the most recently generated CMEAKEY in the mobile station associated with AUTHR

1 of the *Page Response Message*, and EXT_ENCRYPT_SEQ[0] and
 2 EXT_ENCRYPT_SEQ[1] to 256 × ENC SEQ H (the ENC SEQ H
 3 field in the *Page Response Message*).

- 4 o If USE_NEW_KEY_r is not included, or is included and is set to ‘1’, the
 5 mobile station shall use the session key generated at the most recent
 6 registration for encryption of signaling and user information. The
 7 mobile station shall store the session key in KEY_s[KEY_SEQ_NEW_s
 8 p]. The mobile station shall store KEY_SIZE_r to KEY_SIZE_s. The
 9 mobile station shall then increment the variable KEY_SEQ_NEW_s_p
 10 by one (modulo 16). If ENC KEY SIZE_r is included, the mobile station
 11 shall set ENC KEY SIZE_s to ENC KEY SIZE_r.
- 12 + If USE_NEW_KEY_r is included and is set to ‘0’ then the mobile station
 13 shall use KEY_s[KEY_SEQ_r] as the session key.
- 14 o If C SIG ENCRYPT MODE is included, the mobile station shall set
 15 C SIG ENCRYPT MODE_s to C SIG ENCRYPT MODE_r.
- 16 + The mobile station shall set SERV_NEG_s to enabled.
- 17 + The mobile station shall initialize CODE_CHAN_LIST as described in
 18 2.6.8 and shall then enter the *Traffic Channel Initialization Substate* of
 19 the *Mobile Station Control on the Traffic Channel State*.
- 20 - If FREQ_INCL_r equals ‘1’, the mobile station shall perform the following
 21 actions:
 - 22 + If the band class is not supported by the mobile station, the mobile
 23 station shall send a *Mobile Station Reject Order* with ORDQ field set to
 24 ‘00000110’ (capability not supported by the mobile station) and shall
 25 remain in the *Page Response Substate*.
 - 26 + If the band class is supported by the mobile station, the mobile station
 27 shall perform the following actions:
 - 28 o The mobile station shall store the frame offset (FRAME_OFFSET_s =
 29 FRAME_OFFSET_r), the message encryption mode indicator
 30 (ENCRYPT_MODE_s = ENCRYPT_MODE_r), the bypass indicator
 31 (BYPASS_ALERT_ANSWER_s = BYPASS_ALERT_ANSWER_r), the
 32 granted mode (GRANTED_MODE_s = GRANTED_MODE_r), the default
 33 configuration (DEFAULT_CONFIG_s = DEFAULT_CONFIG_r), the band
 34 class (CDMABAND_s = BAND_CLASS_r), and the Frequency Assignment
 35 (CDMACH_s = CDMA_FREQ_r).
 - 36 o The mobile station shall perform the following procedures in the order
 37 listed below:
 - 38 ◊ If D SIG ENCRYPT MODE_r is included, the mobile station shall
 39 perform the following:

1 – If D SIG ENCRYPT MODE_r is equal to ‘000’, the mobile
 2 station shall set D SIG ENCRYPT MODE_s to
 3 C SIG ENCRYPT MODE_s; otherwise, the mobile station shall
 4 set D SIG ENCRYPT MODE_s to D SIG ENCRYPT MODE_r,
 5 ENC KEY_s to the most recently generated CMEAKEY in the
 6 mobile station associated with AUTHR of the *Page Response*
 7 *Message*, and EXT ENCRYPT SEQ[0] and
 8 EXT ENCRYPT SEQ[1] to $256 \times \text{ENC SEQ H}$ (the
 9 ENC SEQ H field in the *Page Response Message*).

- 10 ◊ If USE_NEW_KEY_r is not included, or is included and is set to ‘1’,
 11 the mobile station shall use the session key generated at the most
 12 recent registration for encryption of signaling and user
 13 information. The mobile station shall store the session key in
 14 KEY_s[KEY_SEQ_NEW_{s,p}]. The mobile station shall store
 15 KEY_SIZE_r to KEY_SIZE_s. The mobile station shall then
 16 increment the variable KEY_SEQ_NEW_{s,p} by one (modulo 16). If
 17 ENC KEY SIZE_r is included, the mobile station shall set
 18 ENC KEY SIZE_s to ENC KEY SIZE_r.
- 19 ◊ If USE_NEW_KEY_r is included and is set to ‘0’ then the mobile
 20 station shall use KEY_s[KEY_SEQ_r] as the session key.

21 o If C SIG ENCRYPT MODE is included, the mobile station shall set
 22 C SIG ENCRYPT MODE_s to C SIG ENCRYPT MODE_r.

- 23 o The mobile station shall initialize CODE_CHAN_LIST as described in
 24 2.6.8, and shall set SERV_NEG_s to enabled.
- 25 o The mobile station shall then tune to the new Frequency Assignment
 26 and shall enter the *Traffic Channel Initialization Substate* of the *Mobile*
 27 *Station Control on the Traffic Channel State*.

- 28 • If ASSIGN_MODE_r equals ‘101’, the mobile station shall perform the following
 29 actions:
 - 30 – If FREQ_INCL_r equals ‘0’, the mobile station shall perform the following
 31 actions:
 - 32 + If the message requires acknowledgement, the mobile station shall wait
 33 until Layer 3 receives an indication from Layer 2 that the
 34 acknowledgement to the message has been sent and acknowledged.
 - 35 + The mobile station shall set CONFIG_MSG_SEQ_s and ACC_MSG_SEQ_s to
 36 NULL (see 2.6.2.2) and shall set PILOT_PN_s to the pilot PN sequence
 37 offset of the strongest pilot in the list (PILOT_PN_r).

- + If the mobile station has not stored configuration parameters for the Primary Paging Channel of the new base station, or if the stored information is not current (see 2.6.2.2), the mobile station shall set SYS_PAR_MSG_SEQ_S, NGHBR_LST_MSG_SEQ_S, EXT_NGHBR_LST_MSG_SEQ_S, GEN_NGHBR_LIST_MSG_SEQ_S, USER_ZONE_ID_MSG_SEQ_S, PRI_NGHBR_LST_MSG_SEQ_S, CHAN_LST_MSG_SEQ_S, EXT_CHAN_LST_MSG_SEQ_S, EXT_SYS_PAR_MSG_SEQ_S, GLOB_SERV_REDIR_MSG_SEQ_S, and EXT_GLOB_SERV_REDIR_MSG_SEQ_S to NULL.
- + The mobile station shall set PAGE_CHAN_S to '1' and PAGECH_S to the Primary Paging Channel. The mobile station shall then begin monitoring the Primary Paging Channel of the selected base station.
- + If RESPOND_T is equal to '1', the mobile station shall perform the following:
 - o If the *Channel Assignment Message* does not require an acknowledgment, the mobile station shall enter the *Update Overhead Information Substate* with a page response retransmission indication within T_{34m} seconds after receiving the *Channel Assignment Message*.
 - o If the *Channel Assignment Message* requires an acknowledgment, the mobile station shall enter the *Update Overhead Information Substate* with a page response retransmission indication within T_{34m} seconds after Layer 3 receives an indication from Layer 2 that the acknowledgement to the *Channel Assignment Message* has been sent and acknowledged.
- + If RESPOND_T is equal to '0', the mobile station shall perform the following:
 - o If the *Channel Assignment Message* does not require an acknowledgment, the mobile station shall enter the *Mobile Station Idle State* within T_{34m} seconds after receiving the *Channel Assignment Message*.
 - o If the *Channel Assignment Message* requires an acknowledgment, the mobile station shall enter the *Mobile Station Idle State* within T_{34m} seconds after Layer 3 receives an indication from Layer 2 that the acknowledgement to the *Channel Assignment Message* has been sent and acknowledged.
- If FREQ_INCL_T equals '1', the mobile station shall perform the following actions:
 - + If the band class is not supported by the mobile station, the mobile station shall send a *Mobile Station Reject Order* with ORDQ field set to '00000110' (capability not supported by the mobile station) and shall remain in the *Page Response Substate*.

- + If the band class is supported by the mobile station, the mobile station shall perform the following actions:
 - o If the message requires acknowledgement, the mobile station shall wait until Layer 3 receives an indication from Layer 2 that the acknowledgement to the message has been sent and acknowledged.
 - o The mobile station shall set $CDMACH_s$ to $CDMA_FREQ_r$ and $CDMABAND_s$ to $BAND_CLASS_r$. Then the mobile station shall tune to the new Frequency Assignment, measure the strength of each pilot listed in the assignment using the Neighbor Set search procedures specified in 2.6.6.2.1 and 2.6.6.2.2, set $PILOT_PN_s$ to the pilot PN sequence offset of the strongest pilot in the list ($PILOT_PN_r$), and set $CONFIG_MSG_SEQ_s$ and $ACC_MSG_SEQ_s$ to NULL (see 2.6.2.2).
 - o If the mobile station has not stored configuration parameters for the Primary Paging Channel of the new base station, or if the stored information is not current (see 2.6.2.2), the mobile station shall set $SYS_PAR_MSG_SEQ_s$, $NGHBR_LST_MSG_SEQ_s$, $EXT_NGHBR_LST_MSG_SEQ_s$, $GEN_NGHBR_LIST_MSG_SEQ_s$, $USER_ZONE_ID_MSG_SEQ_s$, $PRI_NGHBR_LST_MSG_SEQ_s$, $CHAN_LST_MSG_SEQ_s$, $EXT_CHAN_LST_MSG_SEQ_s$, $EXT_SYS_PAR_MSG_SEQ_s$, $GLOB_SERV_REDIR_MSG_SEQ_s$, and $EXT_GLOB_SERV_REDIR_MSG_SEQ_s$ to NULL.
 - o The mobile station shall set $PAGE_CHAN_s$ to '1' and $PAGECH_s$ to the Primary Paging Channel. The mobile station shall then begin monitoring the Primary Paging Channel of the selected base station.
 - o If $RESPOND_r$ is equal to '1', the mobile station shall perform the following:
 - ◊ If the *Channel Assignment Message* does not require an acknowledgment, the mobile station shall enter the *Update Overhead Information Substate* with a page response retransmission indication within T_{34m} seconds after receiving the *Channel Assignment Message*.
 - ◊ If the *Channel Assignment Message* requires an acknowledgment, the mobile station shall enter the *Update Overhead Information Substate* with a page response retransmission indication within T_{34m} seconds after Layer 3 receives an indication from Layer 2 that the acknowledgement to the *Channel Assignment Message* has been sent and acknowledged.
 - o If $RESPOND_r$ is equal to '0', the mobile station perform the following:
 - ◊ If the *Channel Assignment Message* does not require an acknowledgment, the mobile station shall enter the *Mobile Station Idle State* within T_{34m} seconds after receiving the *Channel Assignment Message*.

- 1 ◊ If the *Channel Assignment Message* requires an acknowledgement,
 2 the mobile station shall enter the *Mobile Station Idle State* within
 3 T_{34m} seconds after Layer 3 receives an indication from Layer 2
 4 that the acknowledgement to the *Channel Assignment Message*
 5 has been sent and acknowledged.

6 **4.5. Data Burst Message**

7 **5.6. Extended Channel Assignment Message:** The mobile station shall process the
 8 message as follows:

- 9 • If ASSIGN_MODE_r equals '000', the mobile station shall perform the following
 10 actions:
 - 11 – The mobile station shall set CH_IND_s to '01'.
 - 12 – If PACA_s is equal to enabled, the mobile station shall set PACA_s to disabled
 13 and PACA_CANCEL to '0', shall disable the PACA state timer, and should
 14 indicate to the user that the PACA call has been canceled.
 - 15 – If GRANTED_MODE_r equals '00', and the multiplex option and radio
 16 configuration specified in the DEFAULT_CONFIG field are not supported by
 17 the mobile station, the mobile station shall send a *Mobile Station Reject Order*
 18 with ORDQ field set to '00000110' (capability not supported by the mobile
 19 station) and shall remain in the *Page Response Substate*.
 - 20 – If GRANTED_MODE_r is equal to '00' and DEFAULT_CONFIG_r is not equal to
 21 '100', the mobile station shall send a *Mobile Station Reject Order* with ORDQ
 22 field set to '00001110' (RC does not match with DEFAULT_CONFIG_r) and
 23 shall remain in the *Page Response Substate* if any of the following conditions
 24 is true:
 - 25 + FOR_FCH_RC_r is not equal to the RC associated with
 26 DEFAULT_CONFIG_r (see Table 3.7.2.3.2.21-2).
 - 27 + REV_FCH_RC_r is not equal to the RC associated with DEFAULT_CONFIG_r
 28 (see Table 3.7.2.3.2.21-2).
 - 29 – If the mobile station does not support either of the Fundamental Channel
 30 Radio Configurations (FOR_FCH_RC or REV_FCH_RC), the mobile shall send
 31 a *Mobile Station Reject Order* with the ORDQ field set to '00000110'
 32 (capability not supported by the mobile station) and remain in the *Page
 33 Response Substate*.
 - 34 – If P_REV_IN_USE_s is equal to or greater than 6, the mobile station shall store
 35 the Forward Fundamental Channel Radio Configuration (FOR_FCH_RC_s =
 36 FOR_FCH_RC_r) and the Reverse Fundamental Channel Radio Configuration
 37 (REV_FCH_RC_s = REV_FCH_RC_r).
 - 38 – If FREQ_INCL_r equals '0', the mobile station shall perform the following
 39 actions:
 - 40 – If P_REV_IN_USE_s is equal to or greater than 6, the mobile station shall store
 41 the Forward Fundamental Channel Radio Configuration (FOR_FCH_RC_s =
 42 FOR_FCH_RC_r) and the Reverse Fundamental Channel Radio Configuration
 43 (REV_FCH_RC_s = REV_FCH_RC_r).

- 1 + The mobile station shall store the frame offset (FRAME_OFFSET_s =
 2 FRAME_OFFSET_r); the message encryption mode indicator
 3 (ENCRYPT_MODE_s = ENCRYPT_MODE_r); the bypass indicator
 4 (BYPASS_ALERT_ANSWER_s = BYPASS_ALERT_ANSWER_r); the granted
 5 mode (GRANTED_MODE_s = GRANTED_MODE_r); the default configuration
 6 (DEFAULT_CONFIG_s = DEFAULT_CONFIG_r); and the occurrences of
 7 PILOT_PN and PWR_COMB for each included member of the Active Set.
- 8 + The mobile station shall perform the following procedures in the order
 9 listed below:
- 10 o If D SIG ENCRYPT MODE_r is included, the mobile station shall
 11 perform the following:
- 12 ◊ If D SIG ENCRYPT MODE_r is equal to '000', the mobile station
 13 shall set D SIG ENCRYPT MODE_s to C SIG ENCRYPT MODE_s;
 14 otherwise, the mobile station shall set D SIG ENCRYPT MODE_s
 15 to D SIG ENCRYPT MODE_r, ENC KEY_s to the most recently
 16 generated CMEAKEY in the mobile station associated with AUTHR
 17 of the *Page Response Message*, and EXT ENCRYPT SEQ[0] and
 18 EXT ENCRYPT SEQ[1] to 256 × ENC SEQ H (the ENC SEQ H
 19 field in the *Page Response Message*).
- 20 o If USE_NEW_KEY_r is not included, or is included and is set to '1', the
 21 mobile station shall use the session key generated at the most recent
 22 registration for encryption of signaling and user information. The
 23 mobile station shall store the session key in KEY_s[KEY_SEQ_NEW_s
 24 p]. The mobile station shall store KEY_SIZE_r to KEY_SIZE_s. The
 25 mobile station shall then increment the variable KEY_SEQ_NEW_s p
 26 by one (modulo 16). If ENC KEY SIZE_r is included, the mobile station
 27 shall set ENC KEY SIZE_s to ENC KEY SIZE_r.
- 28 + ~~If USE_NEW_KEY_r is included and is set to '0' then the mobile station~~
 29 ~~shall use KEY_s[KEY_SEQ_r] as the session key.~~
- 30 + If C SIG ENCRYPT MODE is included, the mobile station shall set
 31 C SIG ENCRYPT MODE_s to C SIG ENCRYPT MODE_r.
- 32 + The mobile station shall initialize CODE_CHAN_LIST as described in
 33 2.6.8, and shall set SERV_NEG_s to enabled.
- 34 + The mobile station shall set FPC_FCH_INIT_SETPT_s to
 35 FPC_FCH_INIT_SETPT_r, FPC_FCH_CURR_SETPT_s to
 36 FPC_FCH_INIT_SETPT_s, FPC_FCH_FER_s to FPC_FCH_FER_r,
 37 FPC_FCH_MIN_SETPT_s to FPC_FCH_MIN_SETPT_r,
 38 FPC_FCH_MAX_SETPT_s to FPC_FCH_MAX_SETPT_r, and FPC_PRI_CHAN_s
 39 to '0' if the mobile station supports any Radio Configuration greater than
 40 2.
- 41 + The mobile station shall set FPC_SUBCHAN_GAIN_s to
 42 FPC_SUBCHAN_GAIN_r.

- 1 + The mobile station shall set RLGAIN_ADJS to RLGAIN_ADJ_r.
- 2 + The mobile station shall set REV_FCH_GATING_MODES to
3 REV_FCH_GATING_MODE_r.
- 4 + The mobile station shall set REV_PWR_CNTL_DELAY_s to
5 REV_PWR_CNTL_DELAY_r if REV_PWR_CNTL_DELAY_INCL_r is equal to
6 '1'.
- 7 + The mobile station shall then enter the *Traffic Channel Initialization*
8 *Substate* of the *Mobile Station Control on the Traffic Channel State*.
- 9 - If FREQ_INCL_r equals '1', and the band class is not supported by the mobile
10 station, the mobile station shall send a *Mobile Station Reject Order* with
11 ORDQ field set to '00000110' (capability not supported by the mobile station)
12 and remain in the *Page Response Substate*.
- 13 - If FREQ_INCL_r equals '1', and the band class is supported by the mobile
14 station, the mobile station shall perform the following actions:
- 15 + The mobile station shall store the frame offset (FRAME_OFFSET_s =
16 FRAME_OFFSET_r); the message encryption mode indicator
17 (ENCRYPT_MODE_s = ENCRYPT_MODE_r); the bypass indicator
18 (BYPASS_ALERT_ANSWER_s = BYPASS_ALERT_ANSWER_r); the granted
19 mode (GRANTED_MODE_s = GRANTED_MODE_r); the default configuration
20 (DEFAULT_CONFIG_s = DEFAULT_CONFIG_r); the band class
21 (CDMABAND_s = BAND_CLASS_r); the Frequency Assignment
22 (CDMACH_s = CDMA_FREQ_r); and the occurrences of PILOT_PN and
23 PWR_COMB_IND for each included member of the Active Set.
- 24 + The mobile station shall perform the following procedures in the order
25 listed below:
- 26 o If D SIG ENCRYPT MODE_r is included, the mobile station shall
27 perform the following:
- 28 ◊ If D SIG ENCRYPT MODE_r is equal to '000', the mobile station
29 shall set D SIG ENCRYPT MODE_s to C SIG ENCRYPT MODE_s;
30 otherwise, the mobile station shall set D SIG ENCRYPT MODE_s
31 to D SIG ENCRYPT MODE_r, ENC KEY_s to the most recently
32 generated CMEAKEY in the mobile station associated with AUTHR
33 of the Page Response Message, and EXT_ENCRYPT_SEQ[0] and
34 EXT_ENCRYPT_SEQ[1] to 256 × ENC SEQ_H (the ENC SEQ_H
35 field in the Page Response Message).

- 1 o If USE_NEW_KEY_r is not included, or is included and is set to '1', the
 2 mobile station shall use the session key generated at the most recent
 3 registration for encryption of signaling and user information. The
 4 mobile station shall store the session key in KEY_s[KEY_SEQ_NEW_s
 5 p]. The mobile station shall store KEY_SIZE_r to KEY_SIZE_s. The
 6 mobile station shall then increment the variable KEY_SEQ_NEW_s p
 7 by one (modulo 16). If ENC_KEY_SIZE_r is included, the mobile station
 8 shall set ENC_KEY_SIZE_s to ENC_KEY_SIZE_r.
- 9 + If USE_NEW_KEY_r is included and is set to '0' then the mobile station
 10 shall use KEY_s[KEY_SEQ_r] as the session key.
- 11 o If C_SIG_ENCRYPT_MODE is included, the mobile station shall set
 12 C_SIG_ENCRYPT_MODE_s to C_SIG_ENCRYPT_MODE_r.
- 13 + The mobile station shall set FPC_FCH_INIT_SETPT_s to
 14 FPC_FCH_INIT_SETPT_r, FPC_FCH_CURR_SETPT_s to
 15 FPC_FCH_INIT_SETPT_s, FPC_FCH_FER_s to FPC_FCH_FER_r,
 16 FPC_FCH_MIN_SETPT_s to FPC_FCH_MIN_SETPT_r,
 17 FPC_FCH_MAX_SETPT_s to FPC_FCH_MAX_SETPT_r, and FPC_PRI_CHAN_s
 18 to '0' if the mobile station supports any Radio Configuration greater than
 19 2.
- 20 + The mobile station shall set FPC_SUBCHAN_GAIN_s to
 21 FPC_SUBCHAN_GAIN_r.
- 22 + The mobile station shall set RLGAIN_ADJ_s to RLGAIN_ADJ_r.
- 23 + The mobile station shall set REV_FCH_GATING_MODE_s to
 24 REV_FCH_GATING_MODE_r.
- 25 + The mobile station shall set REV_PWR_CNTL_DELAY_s to
 26 REV_PWR_CNTL_DELAY_r if REV_PWR_CNTL_DELAY_INCL_r is equal to
 27 '1'.
- 28 + The mobile station shall initialize CODE_CHAN_LIST as described in
 29 2.6.8, and shall set SERV_NEG_s to enabled.
- 30 + The mobile station shall then tune to the new Frequency Assignment and
 31 shall enter the *Traffic Channel Initialization Substate* of the *Mobile Station*
 32 *Control on the Traffic Channel State*.
- 33 • If ASSIGN_MODE_r equals '001', the mobile station shall perform the following
 34 actions:
- 35 – If FREQ_INCL_r equals '0', the mobile station shall perform the following
 36 actions:
- 37 + If the message requires acknowledgement, the mobile station shall wait
 38 until Layer 3 receives an indication from Layer 2 that the
 39 acknowledgement to the message has been sent and acknowledged.

- + The mobile station shall set CONFIG_MSG_SEQ_S and ACC_MSG_SEQ_S to NULL (see 2.6.2.2) and shall set PILOT_PN_S to the pilot PN sequence offset of the strongest pilot in the list (PILOT_PN_R). If the mobile station has not stored configuration parameters for the Primary Paging Channel of the new base station, or if the stored information is not current (see 2.6.2.2), the mobile station shall set SYS_PAR_MSG_SEQ_S, NGHBR_LST_MSG_SEQ_S, EXT_NGHBR_LST_MSG_SEQ_S, GEN_NGHBR_LIST_MSG_SEQ_S, USER_ZONE_ID_MSG_SEQ_S, PRI_NGHBR_LST_MSG_SEQ_S CHAN_LST_MSG_SEQ_S, EXT_CHAN_LST_MSG_SEQ_S, EXT_SYS_PAR_MSG_SEQ_S, GLOB_SERV_REDIR_MSG_SEQ_S, and EXT_GLOB_SERV_REDIR_MSG_SEQ_S to NULL.
- + The mobile station shall set PAGE_CHAN_S to '1' and PAGECH_S to the Primary Paging Channel. If the mobile station was monitoring the Forward Common Control Channel, the mobile station shall set the PRAT_S to '00'. The mobile station shall then begin monitoring the Primary Paging Channel of the selected base station.
- + If RESPOND_R is equal to '1', the mobile station shall perform the following:
 - o If the *Extended Channel Assignment Message* does not require an acknowledgment, the mobile station shall enter the *Update Overhead Information Substate* with a page response retransmission indication within T_{34m} seconds after receiving the *Extended Channel Assignment Message*.
 - o If the *Extended Channel Assignment Message* requires an acknowledgment, the mobile station shall enter the *Update Overhead Information Substate* with a page response retransmission indication within T_{34m} seconds after Layer 3 receives an indication from Layer 2 that the acknowledgement to the *Extended Channel Assignment Message* has been sent and acknowledged.
- + If RESPOND_R is equal to '0', the mobile station shall perform the following:
 - o If the *Extended Channel Assignment Message* does not require an acknowledgment, the mobile station shall enter the *Mobile Station Idle State* within T_{34m} seconds after receiving the *Extended Channel Assignment Message*.
 - o If the *Extended Channel Assignment Message* requires an acknowledgment, the mobile station shall enter the *Mobile Station Idle State* within T_{34m} seconds after Layer 3 receives an indication from Layer 2 that the acknowledgement to the *Extended Channel Assignment Message* has been sent and acknowledged.

- If FREQ_INCL_r equals ‘1’, and the band class is not supported by the mobile station, the mobile station shall send a *Mobile Station Reject Order* with ORDQ field set to ‘00000110’ (capability not supported by the mobile station) and remain in the *Page Response Substate*.
- If FREQ_INCL_r equals ‘1’, and the band class is supported by the mobile station, the mobile station shall perform the following actions:
 - + If the message requires acknowledgement, the mobile station shall wait until Layer 3 receives an indication from Layer 2 that the acknowledgement to the message has been sent and acknowledged.
 - + The mobile station shall set CDMACH_s to CDMA_FREQ_r and CDMABAND_s to BAND_CLASS_r. Then the mobile station shall tune to the new Frequency Assignment, measure the strength of each pilot listed in the assignment using the Neighbor Set search procedures specified in 2.6.6.2.1 and 2.6.6.2.2, set PILOT_PN_s to the pilot PN sequence offset of the strongest pilot in the list (PILOT_PN_r), and set CONFIG_MSG_SEQ_s and ACC_MSG_SEQ_s to NULL (see 2.6.2.2).
 - + If the mobile station has not stored configuration parameters for the Primary Paging Channel of the new base station, or if the stored information is not current (see 2.6.2.2), the mobile station shall set SYS_PAR_MSG_SEQ_s, NGHBR_LST_MSG_SEQ_s, EXT_NGHBR_LST_MSG_SEQ_s, GEN_NGHBR_LST_MSG_SEQ_s, USER_ZONE_ID_MSG_SEQ_s, PRI_NGHBR_LST_MSG_SEQ_s, CHAN_LST_MSG_SEQ_s, EXT_CHAN_LST_MSG_SEQ_s, EXT_SYS_PAR_MSG_SEQ_s, GLOB_SERV_REDIR_MSG_SEQ_s, and EXT_GLOB_SERV_REDIR_MSG_SEQ_s to NULL.
 - + The mobile station shall set PAGE_CHAN_s to ‘1’ and PAGECH_s to the Primary Paging Channel. The mobile station shall then begin monitoring the Primary Paging Channel of the selected base station.
 - + If RESPOND_r is equal to ‘1’, the mobile station shall perform the following:
 - o If the *Extended Channel Assignment Message* does not require an acknowledgment, the mobile station shall enter the *Update Overhead Information Substate* with a page response retransmission indication within T_{34m} seconds after receiving the *Extended Channel Assignment Message*.
 - o If the *Extended Channel Assignment Message* requires an acknowledgment, the mobile station shall enter the *Update Overhead Information Substate* with a page response retransmission indication within T_{34m} seconds after Layer 3 receives an indication from Layer 2 that the acknowledgement to the *Extended Channel Assignment Message* has been sent and acknowledged.

- + If RESPOND_r is equal to '0', the mobile station shall perform the following:
 - o If the *Extended Channel Assignment Message* does not require an acknowledgment, the mobile station shall enter the *Mobile Station Idle State* within T_{34m} seconds after receiving the *Extended Channel Assignment Message*.
 - o If the *Extended Channel Assignment Message* requires an acknowledgment, the mobile station shall enter the *Mobile Station Idle State* within T_{34m} seconds after Layer 3 receives an indication from Layer 2 that the acknowledgement to the *Extended Channel Assignment Message* has been sent and acknowledged.
- If ASSIGN_MODE_r equals '010', the mobile station shall perform the following actions:
 - If the mobile station does not support analog operation in the requested band class, the mobile station shall send a *Mobile Station Reject Order* with ORDQ field set to '00000110' (capability not supported by the mobile station) and remain in the *Page Response Substate*.
 - If the mobile station supports analog operation in the requested band class, the mobile station shall perform the following actions:
 - + If PACA_s is equal to enabled, the mobile station shall set PACA_s to disabled and PACA_CANCEL to '0', shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.
 - + If RESPOND_r equals '0', and USE_ANALOG_SYS_r equals '1', the mobile station shall set SERVSYS_s to SYS_A if ANALOG_SYS_r is equal to '0', or set SERVSYS_s to SYS_B if ANALOG_SYS_r is equal to '1'. The mobile station shall then enter the analog Initialization Task with a wait-for-page indication (see 2.6.1 of [6]).
 - + If RESPOND_r equals '1', and USE_ANALOG_SYS_r equals '1', the mobile station shall set SERVSYS_s to SYS_A if ANALOG_SYS_r is equal to '0', or set SERVSYS_s to SYS_B if ANALOG_SYS_r is equal to '1'. The mobile station shall then enter the analog Initialization Task with a page response indication (see 2.6.1 of [6]).
 - + If RESPOND_r equals '0', and USE_ANALOG_SYS_r equals '0' the mobile station shall enter the analog Initialization Task with a wait for page indication (see 2.6.1 of [6]).
 - + If RESPOND_r equals '1', and USE_ANALOG_SYS_r equals '0' the mobile station shall enter the analog Initialization Task with a page response indication (see 2.6.1 of [6]).
- If ASSIGN_MODE_r equals '011', the mobile station shall perform the following actions:

- If the mobile station does not support analog operation in the requested band class, the mobile station shall send a *Mobile Station Reject Order* with ORDQ field set to '00000110' (capability not supported by the mobile station) and remain in the *Page Response Substate*.
- If the mobile station supports analog operation in the requested band class, and the analog channel type is '00', the mobile station shall store the system identification ($SID_s = SID_r$), voice mobile station attenuation code ($VMAC_s = VMAC_r$), voice channel number ($ANALOG_CHAN_s = ANALOG_CHAN_r$), SAT color code ($SCC_s = SCC_r$), and message encryption mode indicator ($MEM_s = MEM_r$), shall set DTX_s to '00', and shall enter the Confirm Initial Voice Channel Task (see 2.6.4.2) with a page response indication. If $PACA_s$ is equal to enabled, the mobile station shall set $PACA_s$ to disabled and $PACA_CANCEL$ to '0', shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.
- If the mobile station supports analog operation in the requested band class, the analog channel type is not '00':
 - + If the mobile supports narrow analog mode, the mobile station shall store the system identification ($SID_s = SID_r$), voice mobile station attenuation code ($VMAC_s = VMAC_r$), voice channel number ($ANALOG_CHAN_s = ANALOG_CHAN_r$), message encryption mode indicator ($MEM_s = MEM_r$), analog channel type ($AN_CHAN_TYPE_s = AN_CHAN_TYPE_r$) and the digital SAT code ($DSCC_s = DSCC_MSB_r \times 4 + SCC_r$), shall set DTX_s to '00', and shall enter the Confirm Initial Narrow Analog Voice Channel Task (see 2.6.5.2A of [22]) with a page response indication. If $PACA_s$ is equal to enabled, the mobile station shall set $PACA_s$ to disabled and $PACA_CANCEL$ to '0', shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.
 - + If the mobile station does not support narrow analog mode, the mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to '00000110' (capability not supported by the mobile station) and the mobile station shall remain in the *Page Response Substate* of the *System Access State*.
- If $ASSIGN_MODE_r$ equals '100', the mobile station shall perform the following actions:
 - If $PACA_s$ is equal to enabled, the mobile station shall set $PACA_s$ to disabled and $PACA_CANCEL$ to '0', shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.
 - If $GRANTED_MODE_r$ equals '00' and the multiplex option and radio configuration specified in the $DEFAULT_CONFIG_r$ field are not supported by the mobile station, the mobile station shall send a *Mobile Station Reject Order* with ORDQ field set to '00000110' (capability not supported by the mobile station) and shall remain in the *Page Response Substate*.

- If GRANTED_MODE_r equals ‘00’ and DEFAULT_CONFIG_r is not equal to ‘100’, the mobile station shall send a *Mobile Station Reject Order* with ORDQ field set to ‘00001110’ (RC does not match with DEFAULT_CONFIG) and shall remain in the *Page Response Substate* if one of the following conditions is true:
 - + FOR_RC_r is not equal to the RC associated with DEFAULT_CONFIG_r as specified in Table 3.7.2.3.2.21-2.
 - + REV_RC_r is not equal to the RC associated with DEFAULT_CONFIG_r as specified in Table 3.7.2.3.2.21-2.
- If the mobile station does not support either of the Radio Configurations (FOR_RC or REV_RC), the mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to ‘00000110’ (capability not supported by the mobile station) and remain in the *Page Response Substate*.
- If CH_IND_r = ‘01’ and the mobile station does not support Fundamental Channel, the mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to ‘00000110’ (capability not supported by the mobile station) and remain in the *Page Response Substate*.
- If CH_IND_r = ‘10’ and the mobile station does not support the Dedicated Control Channel, the mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to ‘00000110’ (capability not supported by the mobile station) and remain in the *Page Response Substate*.
- If CH_IND_r = ‘11’ and the mobile station does not support the Dedicated Control Channel and Fundamental Channel concurrently, the mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to ‘00000110’ (capability not supported by the mobile station) and remain in the *Page Response Substate*.
- If FREQ_INCL_r equals ‘1’ and if the band class (BAND_CLASS_r) is not supported by the mobile station, the mobile station shall send a *Mobile Station Reject Order* with ORDQ field set to ‘00000110’ (capability not supported by the mobile station) and remain in the *Page Response Substate*.
- If the mobile station does not send a Mobile Station Reject Order as specified above, it shall continue to perform the actions specified below.
- If FREQ_INCL_r equals ‘1’, the mobile station shall set
 - + CDMABAND_s = BAND_CLASS_r
 - + CDMACH_s = CDMA_FREQ_r
- The mobile station shall store the bypass indicator (BYPASS_ALERT_ANSWER_s = BYPASS_ALERT_ANSWER_r).
- The mobile station shall store granted mode (GRANTED_MODE_s = GRANTED_MODE_r)
- The mobile station shall store the default configuration (DEFAULT_CONFIG_s = DEFAULT_CONFIG_r).

- The mobile station shall store the Forward Traffic Channel Radio Configuration ($\text{FOR_RC}_S = \text{FOR_RC}_R$) and the Reverse Traffic Channel Radio Configuration ($\text{REV_RC}_S = \text{REV_RC}_R$).
- The mobile station shall store the frame offset ($\text{FRAME_OFFSET}_S = \text{FRAME_OFFSET}_R$).
- The mobile station shall store the message encryption mode indicator ($\text{ENCRYPT_MODE}_S = \text{ENCRYPT_MODE}_R$).
- The mobile station shall perform the following procedures in the order listed below:
 - + If $\text{D SIG ENCRYPT MODE}_R$ is included, the mobile station shall perform the following:
 - o If $\text{D SIG ENCRYPT MODE}_R$ is equal to '000', the mobile station shall set $\text{D SIG ENCRYPT MODE}_S$ to $\text{C SIG ENCRYPT MODE}_S$; otherwise, the mobile station shall set $\text{D SIG ENCRYPT MODE}_S$ to $\text{D SIG ENCRYPT MODE}_R$, ENC KEY_S to the most recently generated CMEAKEY in the mobile station associated with AUTHR of the Page Response Message, and $\text{EXT ENCRYPT SEQ}[0]$ and $\text{EXT ENCRYPT SEQ}[1]$ to $256 \times \text{ENC SEQ H}$ (the ENC SEQ H field in the Page Response Message).
 - + If USE_NEW_KEY_F is not included, or is included and is set to '1', the mobile station shall use the session key generated at the most recent registration for encryption of signaling and user information. The mobile station shall store the session key in $\text{KEY}_S[\text{KEY_SEQ_NEW}_S,p]$. The mobile station shall store KEY_SIZE_F to KEY_SIZE_S . The mobile station shall then increment the variable $\text{KEY_SEQ_NEW}_S,p$ by one (modulo 16). If ENC KEY SIZE_R is included, the mobile station shall set ENC KEY SIZE_S to ENC KEY SIZE_R .
 - + If USE_NEW_KEY_F is included and is set to '0' then the mobile station shall use $\text{KEY}_S[\text{KEY_SEQ}_F]$ as the session key.
 - + If $\text{C SIG ENCRYPT MODE}$ is included, the mobile station shall set $\text{C SIG ENCRYPT MODE}_S$ to $\text{C SIG ENCRYPT MODE}_R$.
 - The mobile station shall store the Forward power control subchannel relative gain [$\text{FPC_SUBCHAN_GAIN}_S = \text{FPC_SUBCHAN_GAIN}_R$].
 - The mobile station shall set RLGAIN_ADJ_S to RLGAIN_ADJ_R .
 - The mobile station shall set $\text{REV_FCH_GATING_MODE}_S$ to $\text{REV_FCH_GATING_MODE}_R$.
 - The mobile station shall set $\text{REV_PWR_CNTL_DELAY}_S$ to $\text{REV_PWR_CNTL_DELAY}_R$ if $\text{REV_PWR_CNTL_DELAY_INCL}_R$ is equal to '1'.
 - If 3XFL_1XRL_INCL_R is equal to '1', the mobile station shall set $\text{1XRL_FREQ_OFFSET}_S$ to $\text{1XRL_FREQ_OFFSET}_R$.

- The mobile station shall store the channel indicator ($\text{CH_IND}_s = \text{CH_IND}_r$) and the mobile station shall perform the following actions:
 - + If CH_IND_r equals '01', the mobile station shall set $\text{FPC_FCH_INIT_SETPT}_s$ to $\text{FPC_FCH_INIT_SETPT}_r$, $\text{FPC_FCH_CURR_SETPT}_s$ to $\text{FPC_FCH_INIT_SETPT}_s$, FPC_FCH_FER_s to FPC_FCH_FER_r , $\text{FPC_FCH_MIN_SETPT}_s$ to $\text{FPC_FCH_MIN_SETPT}_r$, $\text{FPC_FCH_MAX_SETPT}_s$ to $\text{FPC_FCH_MAX_SETPT}_r$, and FPC_PRI_CHAN_s to '0' if the mobile station supports any Radio Configuration greater than 2. Then for each included member of the Active Set, the mobile station shall store the following:
 - o Set the PILOT_PN field to PILOT_PN_r .
 - o Set the $\text{ADD_PILOT_REC_INCL}$ field to $\text{ADD_PILOT_REC_INCL}_r$. If $\text{ADD_PILOT_REC_INCL}_r$ equals '1', the mobile station shall store the following:
 - ◊ Set the PILOT_REC_TYPE field of PILOT_REC to PILOT_REC_TYPE_r .
 - ◊ If PILOT_REC_TYPE_r equals '000', the mobile station shall set the TD_POWER_LEVEL field of PILOT_REC to TD_POWER_LEVEL_r and set the TD_MODE field of PILOT_REC to TD_MODE_r .
 - ◊ If PILOT_REC_TYPE_r is equal to '001', the mobile station shall:
 - Set the AUX_PILOT_QOF field of PILOT_REC to QOF_r .
 - Set the $\text{AUX_PILOT_WALSH_CODE}$ field of PILOT_REC to AUX_PILOT_WALSH_r with the Walsh Code length specified by WALSH_LENGTH_r .
 - ◊ If $\text{NGHBR_PILOT_REC_TYPE}_r$ is equal to '010', the mobile station shall:
 - Set the AUX_PILOT_TD_QOF field of PILOT_REC to QOF_r .
 - Set the $\text{AUX_PILOT_WALSH_CODE}$ field of PILOT_REC to AUX_WALSH_r with the Walsh Code length specified by WALSH_LENGTH_r .
 - Set the $\text{AUX_TD_POWER_LEVEL}$ field of PILOT_REC to $\text{AUX_TD_POWER_LEVEL}_r$.
 - Set the TD_MODE field of NGHBR_PILOT_REC to TD_MODE_r .
 - ◊ If PILOT_REC_TYPE_r is equal to '011', the mobile station shall:
 - Set the SR3_PRIMARY_PILOT field of PILOT_REC to $\text{SR3_PRIMARY_PILOT}_r$.
 - Set the SR3_PILOT_POWER1 field of PILOT_REC to $\text{SR3_PILOT_POWER1}_r$.
 - Set the SR3_PILOT_POWER2 field of PILOT_REC to $\text{SR3_PILOT_POWER2}_r$.

- 1 ◊ If PILOT_REC_TYPE_r is equal to '100', the mobile station shall:
- 2 – Set the SR3_PRIMARY_PILOT field of PILOT_REC to
3 SR3_PRIMARY_PILOT_r.
- 4 – Set the SR3_PILOT_POWER1 field of PILOT_REC to
5 SR3_PILOT_POWER1_r.
- 6 – Set the SR3_PILOT_POWER2 field of PILOT_REC to
7 SR3_PILOT_POWER2_r.
- 8 – Set the AUX_PILOT_QOF field of PILOT_REC to QOF_r.
- 9 – Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to
10 AUX_PILOT_WALSH_r with the Walsh Code length specified by
11 WALSH_LENGTH_r.
- 12 – If ADD_INFO_INCL1_r is equal to '1', set the AUX_PILOT_QOF1
13 field of PILOT_REC to QOF1_r and set the
14 AUX_PILOT_WALSH_CODE1 field of PILOT_REC to
15 AUX_PILOT_WALSH1_r with the Walsh Code length specified by
16 WALSH_LENGTH1_r.
- 17 – Otherwise, set the AUX_PILOT_QOF1 field of PILOT_REC to QOF_r
18 and set the AUX_PILOT_WALSH_CODE1 field of PILOT_REC to
19 AUX_PILOT_WALSH_r with the Walsh Code length specified by
20 WALSH_LENGTH_r.
- 21 – If ADD_INFO_INCL2_r is equal to '1', set the AUX_PILOT_QOF2
22 field of PILOT_REC to QOF2_r and set the
23 AUX_PILOT_WALSH_CODE2 field of PILOT_REC to
24 AUX_PILOT_WALSH2_r with the Walsh Code length specified by
25 WALSH_LENGTH2_r.
- 26 – Otherwise, set the AUX_PILOT_QOF2 field of PILOT_REC to QOF_r
27 and set the AUX_PILOT_WALSH_CODE2 field of PILOT_REC to
28 AUX_PILOT_WALSH_r with the Walsh Code length specified by
29 WALSH_LENGTH_r.
- 30 o Set the PWR_COMB_IND field to PWR_COMB_IND_r.
- 31 o Set the CODE_CHAN_FCH field to CODE_CHAN_FCH_r.
- 32 o Set the QOF_MASK_ID_FCH field to QOF_MASK_ID_FCH_r.
- 33 + If CH_IND_r equals '01' and 3X_FCH_INFO_INCL_r equals to '1', for each
34 included member of the Active Set, the mobile station store the following:
- 35 o If 3X_FCH_LOW_INCL_r equals '1', set the QOF_MASK_ID_FCH_LOW field
36 to QOF_MASK_ID_FCH_LOW_r and the CODE_CHAN_FCH_LOW field to
37 CODE_CHAN_FCH_LOW_r. Otherwise, set the QOF_MASK_ID_FCH_LOW
38 field to QOF_MASK_ID_FCH_r and the CODE_CHAN_FCH_LOW to
39 CODE_CHAN_FCH_r.

- 1 o If $3X_FCH_HIGH_INCL_r$ equals ‘1’, set the $QOF_MASK_ID_FCH_HIGH$
 2 field to $QOF_MASK_ID_FCH_HIGH_r$ and the $CODE_CHAN_FCH_HIGH$
 3 field to $CODE_CHAN_FCH_HIGH_r$. Otherwise, set the
 4 $QOF_MASK_ID_FCH_HIGH$ field to $QOF_MASK_ID_FCH_r$ and the
 5 $CODE_CHAN_FCH_HIGH$ to $CODE_CHAN_FCH_r$.
- 6 + If CH_IND_r equals ‘10’, the mobile station shall set $FPC_DCCH_INIT_SETPT_s$
 7 to $FPC_DCCH_INIT_SETPT_r$, $FPC_DCCH_CURR_SETPT_s$ to
 8 $FPC_DCCH_INIT_SETPT_s$, $FPC_DCCH_FER_s$ to $FPC_DCCH_FER_r$,
 9 $FPC_DCCH_MIN_SETPT_s$ to $FPC_DCCH_MIN_SETPT_r$,
 10 $FPC_DCCH_MAX_SETPT_s$ to $FPC_DCCH_MAX_SETPT_r$, and $FPC_PRI_CHAN_s$
 11 to ‘1’ if the mobile station supports any Radio Configuration greater than 2.
 12 Then for each included member of the Active Set, the mobile station shall
 13 store the following:
 - 14 o Set the $PILOT_PN$ to $PILOT_PN_r$.
 - 15 o Set the $ADD_PILOT_REC_INCL$ field to $ADD_PILOT_REC_INCL_r$. If
 16 $ADD_PILOT_REC_INCL$ is equal to ‘1’, the mobile station shall store the
 17 following:
 - 18 ♦ Set the $PILOT_REC_TYPE$ field of $PILOT_REC$ to $PILOT_REC_TYPE_r$.
 - 19 ♦ If $PILOT_REC_TYPE_r$ equals ‘000’, the mobile station shall set the
 20 TD_POWER_LEVEL field of $PILOT_REC$ to $TD_POWER_LEVEL_r$ and
 21 set the TD_MODE field of $PILOT_REC$ to TD_MODE_r .
 - 22 ♦ If $PILOT_REC_TYPE_r$ is equal to ‘001’, the mobile station shall:
 - 23 – Set the AUX_PILOT_QOF field of $PILOT_REC$ to QOF_r .
 - 24 – Set the $AUX_PILOT_WALSH_CODE$ field of $PILOT_REC$ to
 25 $AUX_PILOT_WALSH_r$ with the Walsh Code length specified by
 26 $WALSH_LENGTH_r$.
 - 27 ♦ If $PILOT_REC_TYPE_r$ is equal to ‘010’, the mobile station shall:
 - 28 – Set the $AUX_PILOT_TD_QOF$ field of $PILOT_REC$ to QOF_r .
 - 29 – Set the $AUX_PILOT_WALSH_CODE$ field of $PILOT_REC$ to
 30 AUX_WALSH_r with the Walsh Code length specified by
 31 $WALSH_LENGTH_r$.
 - 32 – Set the $AUX_TD_POWER_LEVEL$ field of $PILOT_REC$ to
 33 $AUX_TD_POWER_LEVEL_r$.
 - 34 – Set the TD_MODE field of $PILOT_REC$ to TD_MODE_r .
 - 35 ♦ If $PILOT_REC_TYPE_r$ is equal to ‘011’, the mobile station shall:
 - 36 – Set the $SR3_PRIMARY_PILOT$ field of $PILOT_REC$ to
 37 $SR3_PRIMARY_PILOT_r$.
 - 38 – Set the $SR3_PILOT_POWER1$ field of $PILOT_REC$ to
 39 $SR3_PILOT_POWER1_r$.

- 1 – Set the SR3_PILOT_POWER2 field of PILOT_REC to
2 SR3_PILOT_POWER2_r.
- 3 ◊ If PILOT_REC_TYPE_r is equal to ‘100’, the mobile station shall:
- 4 – Set the SR3_PRIMARY_PILOT field of PILOT_REC to
5 SR3_PRIMARY_PILOT_r.
- 6 – Set the SR3_PILOT_POWER1 field of PILOT_REC to
7 SR3_PILOT_POWER1_r.
- 8 – Set the SR3_PILOT_POWER2 field of PILOT_REC to
9 SR3_PILOT_POWER2_r.
- 10 – Set the AUX_PILOT_QOF field of PILOT_REC to QOF_r.
- 11 – Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to
12 AUX_PILOT_WALSH_r with the Walsh Code length specified by
13 WALSH_LENGTH_r.
- 14 – If ADD_INFO_INCL1_r is equal to ‘1’, set the AUX_PILOT_QOF1
15 field of PILOT_REC to QOF1_r and set the
16 AUX_PILOT_WALSH_CODE1 field of PILOT_REC to
17 AUX_PILOT_WALSH1_r with the Walsh Code length specified by
18 WALSH_LENGTH1_r.
- 19 – Otherwise, set the AUX_PILOT_QOF1 field of PILOT_REC to QOF_r
20 and set the AUX_PILOT_WALSH_CODE1 field of PILOT_REC to
21 AUX_PILOT_WALSH_r with the Walsh Code length specified by
22 WALSH_LENGTH_r.
- 23 – If ADD_INFO_INCL2_r is equal to ‘1’, set the AUX_PILOT_QOF2
24 field of PILOT_REC to QOF2_r and set the
25 AUX_PILOT_WALSH_CODE2 field of PILOT_REC to
26 AUX_PILOT_WALSH2_r with the Walsh Code length specified by
27 WALSH_LENGTH2_r.
- 28 – Otherwise, set the AUX_PILOT_QOF2 field of PILOT_REC to QOF_r
29 and set the AUX_PILOT_WALSH_CODE2 field of PILOT_REC to
30 AUX_PILOT_WALSH_r with the Walsh Code length specified by
31 WALSH_LENGTH_r.
- 32 o Set the PWR_COMB_IND field to PWR_COMB_IND_r.
- 33 o Set the CODE_CHAN_FCH field to CODE_CHAN_FCH_r.
- 34 o Set the QOF_MASK_ID_FCH field to QOF_MASK_ID_FCH_r.
- 35 o Set the DCCH_INCL field to DCCH_INCL_r. If DCCH_INCL_r equals ‘1’, the
36 mobile station shall store the following:
37 ◊ Set the CODE_CHAN_DCCH field to CODE_CHAN_DCCH_r.
38 ◊ Set the QOF_MASK_ID_DCCH field to QOF_MASK_ID_DCCH_r.

- + If CH_IND_r equals ‘10’ and 3X_DCCH_INFO_INCL_r equals to ‘1’, for each included member of the Active Set, the mobile station store the following:
 - o If 3X_DCCH_LOW_INCL_r equals ‘1’, set the QOF_MASK_ID_DCCH_LOW field to QOF_MASK_ID_DCCH_LOW_r and the CODE_CHAN_DCCH_LOW field to CODE_CHAN_DCCH_LOW_r. Otherwise, set the QOF_MASK_ID_DCCH_LOW field to QOF_MASK_ID_FCH_r and the CODE_CHAN_DCCH_LOW to CODE_CHAN_FCH_r.
 - o If 3X_DCCH_HIGH_INCL_r equals ‘1’, set the QOF_MASK_ID_DCCH_HIGH field to QOF_MASK_ID_DCCH_HIGH_r and the CODE_CHAN_DCCH_HIGH field to CODE_CHAN_DCCH_HIGH_r. Otherwise, set the QOF_MASK_ID_DCCH_HIGH field to QOF_MASK_ID_FCH_r and the CODE_CHAN_DCCH_HIGH to CODE_CHAN_FCH_r.
- + If CH_IND_r equals ‘11’, the mobile station shall set FPC_FCCH_INIT_SETPT_s to FPC_FCH_INIT_SETPT_r, FPC_FCH_CURR_SETPT_s to FPC_FCH_INIT_SETPT_r, FPC_FCH_FER_s to FPC_FCH_FER_r, FPC_FCH_MIN_SETPT_s to FPC_FCH_MIN_SETPT_r, FPC_FCH_MAX_SETPT_s to FPC_FCH_MAX_SETPT_r, FPC_DCCH_INIT_SETPT_s to FPC_DCCH_INIT_SETPT_r, FPC_DCCH_CURR_SETPT_s to FPC_DCCH_INIT_SETPT_r, FPC_DCCH_FER_s to FPC_DCCH_FER_r, FPC_DCCH_MIN_SETPT_s to FPC_DCCH_MIN_SETPT_r, FPC_DCCH_MAX_SETPT_s to FPC_DCCH_MAX_SETPT_r and FPC_PRI_CHAN_s to FPC_PRI_CHAN_r. Then for each included member of the Active Set, the mobile station shall store the following:
 - o Set the PILOT_PN to PILOT_PN_r.
 - o Set the ADD_PILOT_REC_INCL field to ADD_PILOT_REC. If ADD_PILOT_REC_INCL is equal to ‘1’, the mobile station shall store the following:
 - ◊ Set the PILOT_REC_TYPE field of PILOT_REC to PILOT_REC_TYPE_r.
 - ◊ If PILOT_REC_TYPE_r equals ‘000’, the mobile station shall set the TD_POWER_LEVEL field of PILOT_REC to TD_POWER_LEVEL_r and set the TD_MODE field of PILOT_REC to TD_MODE_r.
 - ◊ If PILOT_REC_TYPE_r is equal to ‘001’, the mobile station shall:
 - Set the AUX_PILOT_QOF field of PILOT_REC to QOF_r.
 - Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to AUX_PILOT_WALSH_r with the Walsh Code length specified by WALSH_LENGTH_r.
 - ◊ If PILOT_REC_TYPE_r is equal to ‘010’, the mobile station shall:
 - Set the AUX_PILOT_TD_QOF field of PILOT_REC to QOF_r.

- Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to AUX_WALSH_r with the Walsh Code length specified by WALSH_LENGTH_r.
- Set the AUX_TD_POWER_LEVEL field of PILOT_REC to AUX_TD_POWER_LEVEL_r.
- Set the TD_MODE field of PILOT_REC to TD_MODE_r.
- ◊ If PILOT_REC_TYPE_r is equal to '011', the mobile station shall:
 - Set the SR3_PRIMARY_PILOT field of PILOT_REC to SR3_PRIMARY_PILOT_r.
 - Set the SR3_PILOT_POWER1 field of PILOT_REC to SR3_PILOT_POWER1_r.
 - Set the SR3_PILOT_POWER2 field of PILOT_REC to SR3_PILOT_POWER2_r.
- ◊ If PILOT_REC_TYPE_r is equal to '100', the mobile station shall:
 - Set the SR3_PRIMARY_PILOT field of PILOT_REC to SR3_PRIMARY_PILOT_r.
 - Set the SR3_PILOT_POWER1 field of PILOT_REC to SR3_PILOT_POWER1_r.
 - Set the SR3_PILOT_POWER2 field of PILOT_REC to SR3_PILOT_POWER2_r.
 - Set the AUX_PILOT_QOF field of PILOT_REC to QOF_r.
 - Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to AUX_PILOT_WALSH_r with the Walsh Code length specified by WALSH_LENGTH_r.
 - If ADD_INFO_INCL1_r is equal to '1', set the AUX_PILOT_QOF1 field of PILOT_REC to QOF1_r and set the AUX_PILOT_WALSH_CODE1 field of PILOT_REC to AUX_PILOT_WALSH1_r with the Walsh Code length specified by WALSH_LENGTH1_r.
 - Otherwise, set the AUX_PILOT_QOF1 field of PILOT_REC to QOF_r and set the AUX_PILOT_WALSH_CODE1 field of PILOT_REC to AUX_PILOT_WALSH_r with the Walsh Code length specified by WALSH_LENGTH_r.
 - If ADD_INFO_INCL2_r is equal to '1', set the AUX_PILOT_QOF2 field of PILOT_REC to QOF2_r and set the AUX_PILOT_WALSH_CODE2 field of PILOT_REC to AUX_PILOT_WALSH2_r with the Walsh Code length specified by WALSH_LENGTH2_r.

- Otherwise, set the AUX_PILOT_QOF2 field of PILOT_REC to QOF_r and set the AUX_PILOT_WALSH_CODE2 field of PILOT_REC to AUX_PILOT_WALSH_r with the Walsh Code length specified by WALSH_LENGTH_r.
- o Set the PWR_COMB_IND field to PWR_COMB_IND_r.
- o Set the CODE_CHAN_FCH field to CODE_CHAN_FCH_r.
- o Set the QOF_MASK_ID_FCH field to QOF_MASK_ID_FCH_r.
- o Set the CODE_CHAN_DCCH field to CODE_CHAN_DCCH_r.
- o Set the QOF_MASK_ID_DCCH field to QOF_MASK_ID_DCCH.
- + If CH_IND_r equals '11' and 3X_FCH_INFO_INCL_r equals to '1', for each included member of the Active Set, the mobile station store the following:
 - o If 3X_FCH_LOW_INCL_r equals '1', set the QOF_MASK_ID_FCH_LOW field to QOF_MASK_ID_FCH_LOW_r and the CODE_CHAN_FCH_LOW field to CODE_CHAN_FCH_LOW_r. Otherwise, set the QOF_MASK_ID_FCH_LOW field to QOF_MASK_ID_FCH_r and the CODE_CHAN_FCH_LOW to CODE_CHAN_FCH_r.
 - o If 3X_FCH_HIGH_INCL_r equals '1', set the QOF_MASK_ID_FCH_HIGH field to QOF_MASK_ID_FCH_HIGH_r and the CODE_CHAN_FCH_HIGH field to CODE_CHAN_FCH_HIGH_r. Otherwise, set the QOF_MASK_ID_FCH_HIGH field to QOF_MASK_ID_FCH_r and the CODE_CHAN_FCH_HIGH to CODE_CHAN_FCH_r.
- + If CH_IND_r equals '11' and 3X_DCCH_INFO_INCL_r equals to '1', for each included member of the Active Set, the mobile station store the following:
 - o If 3X_DCCH_LOW_INCL_r equals '1', set the QOF_MASK_ID_DCCH_LOW field to QOF_MASK_ID_DCCH_LOW_r and the CODE_CHAN_DCCH_LOW field to CODE_CHAN_DCCH_LOW_r. Otherwise, set the QOF_MASK_ID_DCCH_LOW field to QOF_MASK_ID_FCH_r and the CODE_CHAN_DCCH_LOW to CODE_CHAN_FCH_r.
 - o If 3X_DCCH_HIGH_INCL_r equals '1', set the QOF_MASK_ID_DCCH_HIGH field to QOF_MASK_ID_DCCH_HIGH_r and the CODE_CHAN_DCCH_HIGH field to CODE_CHAN_DCCH_HIGH_r. Otherwise, set the QOF_MASK_ID_DCCH_HIGH field to QOF_MASK_ID_FCH_r and the CODE_CHAN_DCCH_HIGH to CODE_CHAN_FCH_r.
- The mobile station shall initialize CODE_CHAN_LIST as described in 2.6.8, and shall set SERV_NEG_S to enabled.
- If FREQ_INCL_r equals '1', the mobile station shall then tune to the new frequency assignment.
- The mobile station shall then enter the *Traffic Channel Initialization Substate* of the *Mobile Station Control on the Traffic Channel State*.

1 **6.6. Feature Notification Message**

2 **7.7. Local Control Order**

3 **8.8. Lock Until Power-Cycled Order:** The mobile station shall disable its transmitter
 4 and record the reason for the *Lock Until Power-Cycled Order* in the mobile station's
 5 semi-permanent memory ($LCKRSN_{S-p}$ equals the least significant four bits of
 6 $ORDQ_r$). The mobile station should notify the user of the locked condition. The
 7 mobile station shall enter the *System Determination Substate* of the *Mobile Station*
 8 *Initialization State* with a lock indication (see 2.6.1.1), and shall not enter the *System*
 9 *Access State* again until after the next mobile station power-up or until it has
 10 received an *Unlock Order*. This requirement shall take precedence over any other
 11 mobile station requirement specifying entry to the *System Access State*.

12 **9.10. Maintenance Required Order:** The mobile station shall record the reason for the
 13 *Maintenance Required Order* in the mobile station's semi-permanent memory
 14 ($MAINRSN_{S-p}$ equals the least significant four bits of $ORDQ_r$). The mobile station
 15 shall remain in the unlocked condition. The mobile station should notify the user of
 16 the maintenance required condition.

17 **10.11. Registration Accepted Order:**

- If $ORDQ_r = '00000101'$, the mobile station shall set $ROAM_INDI_s =to ROAM_INDI_r$ and should display the roaming condition.
- If $ORDQ_r = '00000111'$, the mobile station shall perform the following:
 - The mobile station shall set $ROAM_INDI_s =to ROAM_INDI_r$ and should display the roaming condition.
 - The mobile station shall set $C_SIG_ENCRYPT_MODE_s =to C_SIG_ENCRYPT_MODE_r$.
 - ~~If USE_NEW_KEY_r is not included, or is included and is set to '1', the mobile station shall use the session key generated at the most recent registration for encryption of signaling and user information. The mobile station shall store the session key in $KEY_s[KEY_SEQ_NEW_{S-p}]$. The mobile station shall store KEY_SIZE_r in KEY_SIZE_s . The mobile station shall increment the variable $KEY_SEQ_NEW_{S-p}$ by one (modulo 16). If ENC KEY SIZE_r is included, the mobile station shall set $ENC_KEY_SIZE_s$ to $ENC_KEY_SIZE_r$.~~
 - ~~If USE_NEW_KEY_r is included and is set to '0', then the mobile station shall use $KEY_s[KEY_SEQ_r]$ as the session key.~~
 - ~~If C SIG ENCRYPT MODE_r is not equal to '000', the mobile station shall set ENC_KEY_s to the most recently generated CMEAKEY in the mobile station, associated with the AUTHR of the *Registration Message*, and EXT ENCRYPT SEQ[0] and EXT ENCRYPT SEQ[1] to $256 \times ENC_SEQ_H$ (the ENC_SEQ_H field in the *Registration Message*)~~

39 **11.12. Registration Rejected Order:** This order indicates that normal service is not
 40 available on this system. The mobile station shall disable the full-TMSI timer. If the
 41 received order specifies to delete the TMSI ($ORDQ = '00000100'$), the mobile station

1 shall set all the bits of the TMSI_CODE_{s-p} to ‘1’. The mobile station shall enter the
 2 *System Determination Substate* of the *Mobile Station Initialization State* with a
 3 registration rejected indication (see 2.6.1.1).

4 **12.13.** *Release Order:* If NDSS_ORIG_s is equal to enabled, the mobile station shall set
 5 NDSS_ORIG_s to disabled, and should indicate to the user that the call origination
 6 has been canceled. The mobile station shall enter the *Mobile Station Idle State* or the
 7 *System Determination Substate* of the *Mobile Station Initialization State* with a release
 8 indication (see 2.6.1.1). If the mobile station enters the *Mobile Station Idle State*,
 9 and if PACA_S is equal to enabled, the mobile station shall set PACA_S to disabled and
 10 PACA_CANCEL to ‘0’, shall disable the PACA state timer, and should indicate to the
 11 user that the PACA call has been canceled.

12 **13.14.** *Retry Order:* The mobile station shall process the message as follows:

- 13 • If RETRY_TYPE_r is equal to ‘000’, the mobile station shall set
 14 RETRY_DELAY_s[RETRY_TYPE] to 0, where RETRY_TYPE is equal to ‘001’, ‘010’,
 15 or ‘011’.
- 16 • If RETRY_TYPE_r is equal to ‘001’, the mobile station shall perform the following:
 - 17 – If RETRY_DELAY_r is equal to ‘00000000’, then the mobile station shall set
 18 RETRY_DELAY_s[RETRY_TYPE_r] to 0.
 - 19 – If RETRY_DELAY_r is not equal to ‘00000000’, the mobile station shall set
 20 RETRY_DELAY_s[RETRY_TYPE_r] as follows:
 - 21 + If the most significant bit of the RETRY_DELAY_r is ‘0’, set
 22 RETRY_DELAY_UNIT_s to 1000ms. If the most significant bit of the
 23 RETRY_DELAY_r is ‘1’, set RETRY_DELAY_UNIT_s to 60000ms.
 - 24 + The mobile station shall set RETRY_DELAY_VALUE_s to the seven least
 25 significant bits of RETRY_DELAY_r.
 - 26 + The mobile station shall store the next system time 80 ms boundary +
 27 RETRY_DELAY_VALUE_s × RETRY_DELAY_UNIT_s ms as
 28 RETRY_DELAY_s[RETRY_TYPE_r].

29 **14.15.** *Security Mode Command Message:* The mobile station shall process the message
 30 as follows:

- 31 • The mobile station shall set C_SIG_ENCRYPT_MODE_s
 32 =C_SIG_ENCRYPT_MODE_r.
- 33 • ~~If USE_NEW_KEY_r is not included, or is included and is set to ‘1’, the mobile
 34 station shall use the session key generated at the most recent registration for
 35 encryption of signaling and user information. The mobile station shall store the
 36 session key in KEY_s[KEY_SEQ_NEW_{s-p}]. The mobile station shall store
 37 KEY_SIZE_r in KEY_SIZE_s. The mobile station shall then increment the variable
 38 KEY_SEQ_NEW_{s-p} by one (modulo 16). If ENC_KEY_SIZE_r is included, the
 39 mobile station shall set ENC_KEY_SIZE_s to ENC_KEY_SIZE_r.~~

- 1 • If USE_NEW_KEY_r is included and is set to '0', then the mobile station shall use
 2 KEY_s[KEY_SEQ_r] as the session key.

3 **15.16. Service Redirection Message:** The mobile station shall process the message as
 4 follows:

- 5 • If the mobile station is directed to an unsupported operation mode or band class,
 6 the mobile station shall respond with a *Mobile Station Reject Order* with ORDQ
 7 equal to '00000110' (message requires a capability that is not supported by the
 8 mobile station).
- 9 • If DELETE_TMSI_r is equal to '1', the mobile station shall set all the bits of
 10 TMSI_CODE_{s-p} to '1'. The mobile station shall disable the full-TMSI timer.
- 11 • The mobile station shall set RETURN_IF_FAIL_s = RETURN_IF_FAIL_r.
- 12 • If RECORD_TYPE_r is equal to '00000000', the mobile station shall enter the
 13 *System Determination Substate* of the *Mobile Station Initialization State* with an
 14 NDSS off indication (see 2.6.1.1); otherwise, the mobile station shall store the
 15 redirection record received in the message as REDIRECT_REC_s and shall enter
 16 the *System Determination Substate* of the *Mobile Station Initialization State* with a
 17 redirection indication (see 2.6.1.1).

18 **16.17. SSD Update Message:** The mobile station shall respond to the message as
 19 specified in 2.3.12.1.5.

20 **17.18. Status Request Message:** The mobile station shall disable the *System Access*
 21 *State* timer and respond to the message. If P_REV_IN_USE_s is less than or equal to
 22 three, the mobile station shall respond with a *Status Response Message*. If
 23 P_REV_IN_USE_s is greater than three, the mobile station shall respond with an
 24 *Extended Status Response Message*. If the message does not specify any
 25 qualification information (QUAL_INFO_TYPE_r is equal to '00000000'), the mobile
 26 station shall include the requested information records in the response. If the
 27 message specifies a band class (QUAL_INFO_TYPE_r is equal to '00000001'), the
 28 mobile station shall only include the requested information records for the specified
 29 band class (BAND_CLASS_r) in the response. If the message specifies a band class
 30 and an operating mode (QUAL_INFO_TYPE_r is equal to '00000010'), the mobile
 31 station shall only include the requested information records for the specified band
 32 class (BAND_CLASS_r) and operating mode (OP_MODE_r) in the response. If the
 33 message specifies a band class or a band class and an operating mode which is not
 34 supported by the mobile station, the mobile station shall send a *Mobile Station Reject*
 35 *Order* with ORDQ set to '00000110' (message requires a capability that is not
 36 supported by the mobile station). If the response to this message exceeds the
 37 allowable length, the mobile station shall send a *Mobile Station Reject Order* with
 38 ORDQ set to '00001000' (response message would exceed the allowable length). If
 39 the message specifies an information record which is not supported by the mobile
 40 station for the specified band class and operating mode, the mobile station shall
 41 send a *Mobile Station Reject Order* with ORDQ set to '00001001' (information record
 42 is not supported for the specified band class and operating mode).

1 **18.19. TMSI Assignment Message:** The mobile station shall store the TMSI zone and
 2 code as follows:

- 3 • The mobile station shall store the length of the TMSI zone field by setting
 4 ASSIGNING_TMSI_ZONE_LEN_{s-p} to TMSI_ZONE_LEN_r;
- 5 • The mobile station shall store the assigning TMSI zone number by setting the
 6 ASSIGNING_TMSI_ZONE_LEN_{s-p} least significant octets of
 7 ASSIGNING_TMSI_ZONE_{s-p} to TMSI_ZONE_r, and
- 8 • The mobile station shall store the TMSI code by setting TMSI_CODE_{s-p} to
 9 TMSI_CODE_r.

10 The mobile station shall set the TMSI expiration time by setting TMSI_EXP_TIME_{s-p}
 11 to TMSI_EXP_TIME_r. The mobile station shall disable the full-TMSI timer. The
 12 mobile station shall then respond with a *TMSI Assignment Completion Message*
 13 within T56m seconds.

14 **19.20. User Zone Reject Message**

15 **20. Base Station Reject Order:**

16 ————— If ORDO_r = '00000001', the mobile station shall send a *Security Mode*
 17 *Request Message* with the ENC_SIC_H field included in it. If the mobile
 18 receives two *Base Station Reject Orders* without successfully decrypting any
 19 encrypted messages from the base station between the orders, the mobile
 20 station shall set REG_ENCRYPT_RESYNC to YES and enter the *System*
 21 *Determination Substate* with an encryption failure indication

22 **21. Any other message:** If the mobile station receives any other message specified in
 23 Table 3.7.2.3-1, it shall ignore all Layer 3 fields. The mobile station shall ignore all
 24 other messages.

25 If the mobile station performs an access probe handoff or access handoff and
 26 receives any of the following messages, it shall process the message as specified in
 27 2.6.3.1.3:

28 • If the mobile station is currently monitoring the Paging Channel:

- 29 1. *System Parameters Message*
- 30 2. *Access Parameters Message*
- 31 3. *Neighbor List Message*
- 32 4. *Extended System Parameters Message*
- 33 5. *Extended Neighbor List Message*
- 34 6. *General Neighbor List Message*
- 35 7. *Global Service Redirection Message*
- 36 ————— 8. *Extended Global Service Redirection Message*

37 • If the mobile station is currently monitoring the Primary Broadcast Control Channel:

1. ANSI-41 System Parameters Message
2. Enhanced Access Parameters Message
3. Universal Neighbor List Message
4. MC-RR Parameters Message
5. Extended Global Service Redirection Message

6 2.6.3.4 Mobile Station Order/Message Response Substate

7 In this substate, the mobile station sends a message that is a response to a message
 8 received from the base station. If the base station responds to the mobile station's message
 9 with an authentication request, the mobile station responds in this substate.

10 If a message received from the base station requires a Layer 2 acknowledgment and does
 11 not require a Layer 3 response, Layer 3 shall indicate to Layer 2 that no response is
 12 outstanding (see 2.1.1.2.2.1 of [4]).

13 If a message received from the base station requires a Layer 2 acknowledgment and also a
 14 Layer 3 response, Layer 3 shall indicate to Layer 2 that a response is outstanding (see
 15 2.1.1.2.2.1 of [4]).

16 When transmitting a response to a message received from the base station, Layer 3 shall
 17 indicate to Layer 2 that the type of the message is a response (see 2.1.1.2.2.1 of [4]).

18 When transmitting an autonomous message (i.e., a message that is not sent as a response
 19 to a message received from the base station), Layer 3 shall indicate to Layer 2 that the type
 20 of the message is a request other than a registration request or a message transmission
 21 request (see 2.1.1.2.2.1 of [4]).

22 Upon entering the *Mobile Station Order/Message Response Substate*, the mobile station
 23 shall send the response message.

24 ~~If this substate was entered with a service release message response with success
 25 indication, the mobile station shall send a Service Release Response Message to the base
 26 station. The mobile station shall set the SUCCESS_IND field to '1'.~~

27 ~~If this substate was entered with a service release message response with failure indication,
 28 the mobile station shall send a Service Release Response Message to the base station. The
 29 mobile station shall set the SUCCESS_IND field to '0'.~~

30 While in this substate, the mobile station shall monitor the Paging Channel or the Forward
 31 Common Control Channel. If the mobile station declares a loss of the Paging Channel or
 32 the Forward Common Control Channel (see [2.6.2.1.1.4 2.6.3.1.8](#)), the mobile station shall
 33 perform the following:

- 34 • If PACA_S is equal to enabled, the mobile station shall set PACA_S to disabled and
 35 PACA_CANCEL to '0', shall disable the PACA state timer, and should indicate to the
 36 user that the PACA call has been canceled.
- 37 • The mobile station shall declare an access attempt failure and update its
 38 registration variables as specified in 2.6.5.5.3.2.

- 1 • The mobile station shall disable its transmitter.
 2 • The mobile station shall enter the *Mobile Station Idle State*.

3 If the mobile station receives confirmation of delivery of any message sent by the mobile
 4 station in this substate, it shall send a response in this substate if required, and shall then
 5 enter the *Mobile Station Idle State*.

6 If PACA_S is equal to enabled, the mobile station shall set PACA_CANCEL to '1' when the
 7 user directs the mobile station to cancel a PACA call.

8 If the mobile station is to exit the *System Access State* as a result of processing Layer 3
 9 fields of a message requiring an acknowledgment, the mobile station shall exit the *System*
 10 *Access State* after Layer 3 receives an indication from Layer 2 that the acknowledgment to
 11 the message has been sent and acknowledged.

12 If Layer 3 receives a message with an indication from Layer 2 that an access attempt for a
 13 message being transmitted was not terminated as a result of processing the Layer 2 fields of
 14 the received message, the mobile station shall ignore the received message.

15 The following directed messages and orders can be received. If any field value of the
 16 message or order is outside its permissible range, the mobile station may send a *Mobile*
 17 *Station Reject Order* with ORDQ equal to '00000100' (message field not in valid range).

- 18 1. *Authentication Challenge Message*: The mobile station shall respond to the message
 19 as specified in 2.3.12.1.4, regardless of the value of AUTH_S.
 20 2. *Base Station Challenge Confirmation Order*: The mobile station shall respond to the
 21 message as specified in 2.3.12.1.5.

22 3. *Base Station Reject Order*:

- 23 • If ORDQ_R = '00000001', the mobile station shall send a *Security Mode Request*
 24 *Message* with the ENC SIG H field included in it. If the mobile receives two *Base*
 25 *Station Reject Orders* without successfully decrypting any encrypted messages
 26 from the base station between the orders, the mobile station shall set
 27 REG ENCRYPT RESYNC to YES and the mobile station shall go to the *System*
 28 *Determination Substate* with an encryption failure indication.

29 3.4. *Data Burst Message*

30 4.5. *Feature Notification Message*

31 5.6. *Local Control Order*

- 32 6.7. *Lock Until Power-Cycled Order*: The mobile station shall disable its transmitter
 33 and record the reason for the *Lock Until Power-Cycled Order* in the mobile station's
 34 semi-permanent memory (LCKRSN_P_{s-p} equals the least significant four bits of
 35 ORDQ_R). The mobile station should notify the user of the locked condition. The
 36 mobile station shall enter the *System Determination Substate* of the *Mobile Station*
 37 *Initialization State* with a lock indication (see 2.6.1.1), and shall not enter the *System*
 38 *Access State* again until after the next mobile station power-up or until it has
 39 received an *Unlock Order*. This requirement shall take precedence over any other
 40 mobile station requirement specifying entry to the *System Access State*.

1 **7-8. Maintenance Required Order:** The mobile station shall record the reason for the
 2 *Maintenance Required Order* in the mobile station's semi-permanent memory
 3 (MAINTRSN_{S-p} equals the least significant four bits of ORDQ_r). The mobile station
 4 shall remain in the unlocked condition. The mobile station should notify the user of
 5 the maintenance required condition.

6 **8-9. Registration Accepted Order:**

- 7 • If $\text{ORDQ}_r = '00000101'$, the mobile station shall set $\text{ROAM_INDI}_S \rightarrow \text{to}$
 8 ROAM_INDI_r and should display the roaming condition.
- 9 • If $\text{ORDQ}_r = '00000111'$, the mobile station shall perform the following:
 - 10 - The mobile station shall set $\text{ROAM_INDI}_S \rightarrow \text{to} \text{ ROAM_INDI}_r$ and should
 11 display the roaming condition.
 - 12 - The mobile station shall set $\text{C_SIG_ENCRYPT_MODE}_S \rightarrow \text{to}$
 13 $\text{C_SIG_ENCRYPT_MODE}_r$.
 - 14 - ~~If USE_NEW_KEY_r is not included, or is included and is set to '1', the mobile
 15 station shall use the session key generated at the most recent registration for
 16 encryption of signaling and user information. The mobile station shall store
 17 the session key in $\text{KEY}_S[\text{KEY_SEQ_NEW}_{S,p}]$. The mobile station shall store
 18 KEY_SIZE_r in KEY_SIZE_S . The mobile station shall increment the variable
 19 $\text{KEY_SEQ_NEW}_{S,p}$ by one (modulo 16). If ENC_KEY_SIZE_r is included, the
 20 mobile station shall set ENC_KEY_SIZE_S to ENC_KEY_SIZE_r .~~
 - 21 - ~~If USE_NEW_KEY_r is included and is set to '0', then the mobile station shall
 22 use $\text{KEY}_S[\text{KEY_SEQ}_r]$ as the session key.~~
 - 23 - ~~If $\text{C_SIG_ENCRYPT_MODE}_r$ is not equal to '000', the mobile station shall set
 24 ENC_KEY_S to the most recently generated CMFAKEY in the mobile station,
 25 associated with the AUTHR of the *Registration Message*, and
 26 $\text{EXT_ENCRYPT_SEQ}[0]$ and $\text{EXT_ENCRYPT_SEQ}[1]$ to $256 \times \text{ENC_SEQ_H}$
 27 (the ENC_SEQ_H field in the *Registration Message*).~~

28 **9-10. Registration Rejected Order:** This order indicates that normal service is not
 29 available on this system. The mobile station shall disable the full-TMSI timer. If the
 30 received order specifies to delete the TMSI ($\text{ORDQ} = '00000100'$), the mobile station
 31 shall set all the bits of the TMSI_CODE_{S-p} to '1'. The mobile station shall enter the
 32 *System Determination Substate* of the *Mobile Station Initialization State* with a
 33 registration rejected indication (see 2.6.1.1).

34 **10-11. Retry Order:** The mobile station shall process the message as follows:

- 35 • If RETRY_TYPE_r is equal to '000', the mobile station shall set
 36 $\text{RETRY_DELAY}_S[\text{RETRY_TYPE}]$ to 0, where RETRY_TYPE is equal to '001', '010',
 37 or '011'.
- 38 • If RETRY_TYPE_r is equal to '001', the mobile station shall perform the following:
 - 39 - If RETRY_DELAY_r is equal to '00000000', then the mobile station shall set
 40 $\text{RETRY_DELAY}_S[\text{RETRY_TYPE}_r]$ to 0.

- If RETRY_DELAY_r is not equal to '00000000', the mobile station shall set RETRY_DELAY_S[RETRY_TYPE_r] as follows:
 - + If the most significant bit of the RETRY_DELAY_r is '0', set RETRY_DELAY_UNIT_S to 1000ms. If the most significant bit of the RETRY_DELAY_r is '1', set RETRY_DELAY_UNIT_S to 60000ms.
 - + The mobile station shall set RETRY_DELAY_VALUE_S to the seven least significant bits of RETRY_DELAY_r.
 - + The mobile station shall store the next system time 80 ms boundary + RETRY_DELAY_VALUE_S × RETRY_DELAY_UNIT_S ms as RETRY_DELAY_S[RETRY_TYPE_r].

11.12. Security Mode Command Message: The mobile station shall process the message as follows:

- The mobile station shall set C_SIG_ENCRYPT_MODE_S to C_SIG_ENCRYPT_MODE_r.
- ~~If USE_NEW_KEY_r is not included, or is included and is set to '1', the mobile station shall use the session key generated at the most recent registration for encryption of signaling and user information. The mobile station shall store the session key in KEY_S[KEY_SEQ_NEW_S.p]. The mobile station shall store KEY_SIZE_r in KEY_SIZE_S. The mobile station shall then increment the variable KEY_SEQ_NEW_S.p by one (modulo 16) If ENC_KEY_SIZE_r is included, the mobile station shall set ENC_KEY_SIZE_S to ENC_KEY_SIZE_r.~~
- ~~If USE_NEW_KEY_r is included and is set to '0', then the mobile station shall use KEY_S[KEY_SEQ_r] as the session key.~~

12.13. Service Redirection Message: The mobile station shall process the message as follows:

- If the mobile station is directed to an unsupported operation mode or band class, the mobile station shall respond with a *Mobile Station Reject Order* with ORDQ equal to '00000110' (message requires a capability that is not supported by the mobile station).
- If DELETE_TMSI_r is equal to '1', the mobile station shall set all the bits of TMSI_CODE_{S-p} to '1'. The mobile station shall disable the full-TMSI timer.
- The mobile station shall set RETURN_IF_FAIL_S = RETURN_IF_FAIL_r.
- If RECORD_TYPE_r is equal to '00000000', the mobile station shall enter the *System Determination Substate* of the *Mobile Station Initialization State* with an NDSS off indication (see 2.6.1.1); otherwise, the mobile station shall store the redirection record received in the message as REDIRECT_REC_S and shall enter the *System Determination Substate* of the *Mobile Station Initialization State* with a redirection indication (see 2.6.1.1).

13.14. SSD Update Message: The mobile station shall respond to the message as specified in 2.3.12.1.5.

1 **14-15. Status Request Message:** The mobile station shall disable the *System Access*
 2 *State* timer and respond to the message. If P_REV_IN_USE_S is less than or equal to
 3 three, the mobile station shall respond with a *Status Response Message*. If
 4 P_REV_IN_USE_S is greater than three, the mobile station shall respond with an
 5 *Extended Status Response Message*. If the message does not specify any
 6 qualification information (QUAL_INFO_TYPE_r is equal to '00000000'), the mobile
 7 station shall include the requested information records in the response. If the
 8 message specifies a band class (QUAL_INFO_TYPE_r is equal to '00000001'), the
 9 mobile station shall only include the requested information records for the specified
 10 band class (BAND_CLASS_r) in the response. If the message specifies a band class
 11 and an operating mode (QUAL_INFO_TYPE_r is equal to '00000010'), the mobile
 12 station shall only include the requested information records for the specified band
 13 class (BAND_CLASS_r) and operating mode (OP_MODE_r) in the response. If the
 14 message specifies a band class or a band class and an operating mode which is not
 15 supported by the mobile station, the mobile station shall send a *Mobile Station Reject*
 16 *Order* with ORDQ set to '00000110' (message requires a capability that is not
 17 supported by the mobile station). If the response to this message exceeds the
 18 allowable length, the mobile station shall send a *Mobile Station Reject Order* with
 19 ORDQ set to '00001000' (response message would exceed the allowable length). If
 20 the message specifies an information record which is not supported by the mobile
 21 station for the specified band class and operating mode, the mobile station shall
 22 send a *Mobile Station Reject Order* with ORDQ set to '00001001' (information record
 23 is not supported for the specified band class and operating mode).

24 **15-16. TMSI Assignment Message:** The mobile station shall store the TMSI zone and
 25 code as follows:

- 26 • The mobile station shall store the length of the TMSI zone field by setting
 27 ASSIGNING_TMSI_ZONE_LEN_{s-p} to TMSI_ZONE_LEN_r,
- 28 • The mobile station shall store the assigning TMSI zone number by setting the
 29 ASSIGNING_TMSI_ZONE_LEN_{s-p} least significant octets of
 30 ASSIGNING_TMSI_ZONE_{s-p} to TMSI_ZONE_r, and
- 31 • The mobile station shall store the TMSI code by setting TMSI_CODE_{s-p} to
 32 TMSI_CODE_r.

33 The mobile station shall set the TMSI expiration time by setting TMSI_EXP_TIME_{s-p}
 34 to TMSI_EXP_TIME_r. The mobile station shall disable the full-TMSI timer. The
 35 mobile station shall then respond with a *TMSI Assignment Completion Message*
 36 within T_{56m} seconds.

37 **16-17. User Zone Reject Message**

38 **17-18. Any other message:** If the mobile station receives any other message specified
 39 in Table 3.7.2.3-1, it shall ignore all Layer 3 fields. The mobile station shall ignore
 40 all other messages.

41 **18. Base Station Reject Order:**

- 1 • If $\text{ORDQ}_F = '00000001'$, the mobile station shall send a *Security Mode Request*
 2 Message with the *ENC_SIC_H* field included in it. If the mobile receives two *Base*
 3 *Station Reject Orders* without successfully decrypting any encrypted messages
 4 from the base station between the orders, the mobile station shall set
 5 $\text{REC_ENCRYPT_RESYNC}$ to YES and the mobile station shall go to the *System*
 6 *Determination Substate* with an encryption failure indication.

7 2.6.3.5 Mobile Station Origination Attempt Substate

8 In this substate, the mobile station sends an *Origination Message*. If the base station
 9 responds to the *Origination Message* with an authentication request, the mobile station
 10 responds in this substate.

11 If a message received from the base station requires a Layer 2 acknowledgment and does
 12 not require a Layer 3 response, Layer 3 shall indicate to Layer 2 that no response is
 13 outstanding (see 2.1.1.2.2.1 of [4]).

14 If a message received from the base station requires a Layer 2 acknowledgment and also a
 15 Layer 3 response, Layer 3 shall indicate to Layer 2 that a response is outstanding (see
 16 2.1.1.2.2.1 of [4]).

17 When transmitting a response to a message received from the base station, Layer 3 shall
 18 indicate to Layer 2 that the type of the message is a response (see 2.1.1.2.2.1 of [4]).

19 When transmitting an autonomous message (i.e., a message that is not sent as a response
 20 to a message received from the base station), Layer 3 shall indicate to Layer 2 that the type
 21 of the message is a request other than a registration request or a message transmission
 22 request (see 2.1.1.2.2.1 of [4]).

23 Upon entering the *Mobile Station Origination Attempt Substate*, the mobile station shall set
 24 RLGAIN_ADJ_S to '0000' and perform the following:

- 25 • The mobile station shall exit the *Mobile Station Origination Attempt Substate*, shall
 26 enter either the *Mobile Station Idle State* or the *System Determination Substate* with
 27 an ACCT blocked indication, and should indicate to the user that the call has
 28 terminated if all of the following conditions are true:
 - 29 – P_REV_IN_USE_S is greater than six,
 - 30 – ACCT_INCL_EMG_S is equal to '1' or the mobile station determines that the call is
 31 not an emergency call,
 - 32 – ACCT is enabled for the requested service option number, due to either of the
 33 following two conditions:
 - 34 + the requested service option number is equal to an ACCT SO entry in
 35 ACCT SO LIST, or
 - 36 + the service option group number of the requested service option is equal to
 37 an ACCT SO GRP entry in ACCT SO GRP LIST.
- 38 • If the substate was entered with an origination indication, the mobile station shall
 39 send the *Origination Message* as an r-csch request.

- If the substate was entered with a PACA response indication, the mobile station shall send the *Origination Message* as an r-csch response using the access procedures specified in 2.6.3.1-~~1.2~~. The mobile station shall include the dialed digits (if any) from the previous origination attempt in the *Origination Message*.
- If the origination is a result of NDSS_ORIG_S being equal to enabled, the mobile station shall include in the *Origination Message* the dialed digits (if any) recorded from the previous origination attempt.
- If the mobile station has a stored service configuration (that is, parameters conveyed by both the Service Configuration information record and the Non-negotiable Service Configuration information record), SYNC_ID_S is not equal to NULL, and USE_SYNC_ID_S is equal to '1', the mobile station may include the SYNC_ID field in the *Origination Message* and, if included, shall set it to the ~~16-bit CRC computed over the entire stored service configuration as specified in 2.6.11~~SYNC_ID_S corresponding to the stored service configuration.
- The mobile station shall include in the *Origination Message* as many of the dialed digits as possible without exceeding the message capsule size. When calculating the number of dialed digits to be included in the *Origination Message*, the mobile station shall assume the following if P_REV_IN_USE_S is greater than three:
 - The number of additional reported pilots (NUM_ADD_PILOTS) is equal to five (see 2.6.3.1.7 and 2.7.1.3.1.3) so that up to five additional pilots may be reported in any access probe, and
 - The number of alternative service option numbers (NUM_ALT_SO) is less than or equal to the maximum alternative service option numbers (MAX_NUM_ALT_SO_S).
- If PACA_S is equal to enabled, the mobile station shall set the PACA_REORIG field of the *Origination Message* to '1'; otherwise, the mobile station shall set the field to '0'.

While in this substate, the mobile station shall monitor the Paging Channel or the Forward Common Control Channel. The mobile station may perform an access probe handoff or an access handoff as described in 2.6.3.1.3.2 and 2.6.3.1.3.3. If the mobile station declares a loss of the Paging Channel or the Forward Common Control Channel (see ~~2.6.2.1.1.4~~ 2.6.3.1.8) during an access attempt, the mobile station may perform an access probe handoff; otherwise, it shall declare an access attempt failure and shall perform the following:

- If the mobile station is monitoring the Paging Channel, the mobile station shall set SYS_PAR_MSG_SEQ_S and ACC_MSG_SEQ_S to NULL.
- If the mobile station is monitoring the Forward Common Control Channel, the mobile station shall set MC_RR_PAR_MSG_SEQ_S and ACC_MSG_SEQ_S to NULL.
- If PACA_S is equal to enabled, the mobile station shall set PACA_S to disabled and PACA_CANCEL to '0', shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.
- If NDSS_ORIG_S is equal to enabled, the mobile station shall set NDSS_ORIG_S to disabled, and should indicate to the user that the call origination is canceled.

- 1 • The mobile station shall update its registration variables as specified in 2.6.5.5.3.2.
- 2 • The mobile station shall disable its transmitter and enter the *Mobile Station Idle*
- 3 *State*.

4 If the mobile station receives confirmation of delivery of any message sent by the mobile
 5 station in this substate, the mobile station shall perform an access handoff if all of the
 6 following conditions hold:

- 7 • The mobile station declares a loss of the Paging Channel or the Forward Common
 8 Control Channel,
- 9 • The mobile station is permitted to perform an access handoff (see 2.6.3.1.3.2) and
 10 there are pilots other than the active pilot in the access handoff list (see 2.6.3.1.3.2).

11 If the mobile station declares a loss of the Paging Channel or the Forward Common Control
 12 Channel and does not perform an access handoff, the mobile station shall perform the
 13 following:

- 14 • If the mobile station is monitoring the Paging Channel, the mobile station shall set
 15 SYS_PAR_MSG_SEQ_S and ACC_MSG_SEQ_S to NULL.
- 16 • If the mobile station is monitoring the Forward Common Control Channel, the
 17 mobile station shall set MC_RR_PAR_MSG_SEQ_S and ACC_MSG_SEQ_S to NULL.
- 18 • If PACA_S is equal to enabled, the mobile station shall set PACA_S to disabled and
 19 PACA_CANCEL to '0', shall disable the PACA state timer, and should indicate to the
 20 user that the PACA call has been canceled.
- 21 • If NDSS_ORIG_S is equal to enabled, the mobile station shall set NDSS_ORIG_S to
 22 disabled and should indicate to the user that the call origination is canceled.
- 23 • The mobile station shall disable its transmitter and enter the *Mobile Station Idle*
 24 *State*.

25 If the mobile station receives confirmation of delivery of the *Origination Message*, the mobile
 26 station shall update its registration variables with respect to the base station to which the
 27 first access probe was transmitted after entering the *System Access State* as specified in
 28 2.6.5.5.3.1.

29 The mobile station shall set and disable the *System Access State* timer as follows:

- 30 • The mobile station shall disable the timer whenever it begins an access attempt.
- 31 • The mobile station shall set the timer to T_{42m} seconds whenever it ends an access
 32 attempt.
- 33 • The mobile station shall disable the timer whenever it exits the *System Access State*.

34 If the *System Access State* timer expires while in this substate, the mobile station shall
 35 perform the following:

- 36 • If PACA_S is equal to enabled, the mobile station shall set PACA_S to disabled and
 37 PACA_CANCEL to '0', shall disable the PACA state timer, and should indicate to the
 38 user that the PACA call has been canceled.

- If NDSS_ORIG_S is equal to enabled, the mobile station shall set NDSS_ORIG_S to disabled, and should indicate to the user that the call origination is canceled.
- If the mobile station is monitoring the Paging Channel, the mobile station shall set SYS_PAR_MSG_SEQ_S and ACC_MSG_SEQ_S to NULL and enter the *Mobile Station Idle State*.
- If the mobile station is monitoring the Forward Common Control Channel, the mobile station shall set MC_RR_PAR_MSG_SEQ_S and ACC_MSG_SEQ_S to NULL and enter the *Mobile Station Idle State*.

If the mobile station is directed by the user to disconnect the call, the mobile station shall perform the following actions:

- Layer 3 shall send an L2-Supervision.Request primitive to Layer 2 to abort any access attempt in progress.
- The mobile station shall send the *Release Order* (normal release) in assured mode requiring confirmation of delivery.
- After receiving confirmation of delivery of the *Release Order*, the mobile station shall enter the *System Determination Substate* of the *Mobile Station Initialization State* with a release indication (see 2.6.1.1).

If the mobile station is directed by the user to power off, the mobile station shall perform the following actions:

- Layer 3 shall send an L2-Supervision.Request primitive to Layer 2 to abort any access attempt in progress.
- The mobile station shall send the *Release Order* (with power-down indication) in assured mode requiring confirmation of delivery.
- After receiving confirmation of delivery of the *Release Order*, the mobile station shall perform power-down registration procedures (see 2.6.5.1.2).
- The mobile station may power off.

If the mobile station receives a *Channel Assignment Message* or the *Extended Channel Assignment Message*, Layer 3 shall send a *dedicated channel assignment* indication to Layer 2 (see 2.1.2.1.2 of [4]). If the mobile station has not received confirmation of delivery of the *Origination Message* before receiving the *Channel Assignment Message* or the *Extended Channel Assignment Message*, the mobile station shall update its registration variables with respect to the base station to which the first access probe was transmitted after entering the *System Access State*, as specified in 2.6.5.3.1.

If the mobile station is to exit the *System Access State* as a result of processing Layer 3 fields of a message requiring an acknowledgment, the mobile station shall exit the *System Access State* after Layer 3 receives an indication from Layer 2 that the acknowledgment to the message has been sent and acknowledged.

If Layer 3 receives a message other than a *Channel Assignment Message* or an *Extended Channel Assignment Message* with an indication from Layer 2 that an access attempt for a message being transmitted was not terminated as a result of processing the Layer 2 fields of

1 the received message, the mobile station shall ignore the received message.

2 The following directed messages and orders can be received. If any field value of the
3 message or order is outside its permissible range, the mobile station may send a *Mobile*
4 *Station Reject Order* with ORDQ equal to '00000100' (message field not in valid range).

- 5 1. *Authentication Challenge Message*: The mobile station shall respond to the message
6 as specified in 2.3.12.1.4, regardless of the value of AUTH_S.
- 7 2. *Base Station Challenge Confirmation Order*: The mobile station shall respond to the message
8 as specified in 2.3.12.1.5.

9 **3. Base Station Reject Order:**

- 10 • If ORDQ_r = '00000000', the mobile station shall set ENC KEY_S to NULL and set
11 C SIG ENCRYPT MODE to '000'. The mobile station shall re-originate by
12 sending a new *Origination Message*.
- 13 • If ORDQ_r = '00000001', the mobile station shall send a *Security Mode Request*
14 *Message* with the ENC SIG H field included in it. If the mobile receives two *Base*
15 *Station Reject Orders* without successfully decrypting any encrypted messages
16 from the base station between the orders, the mobile station shall set
17 REG ENCRYPT RESYNC to YES and the mobile station shall go to the *System*
18 *Determination Substate* with an encryption failure indication.

19 **3.4. Channel Assignment Message**: The mobile station shall process the message as
20 follows:

- 21 • If ASSIGN_MODE_r equals '000', the mobile station shall perform the following
22 actions:
 - 23 – The mobile station shall set CH_IND_S to '01'.
 - 24 – The mobile station shall store the frame offset (FRAME_OFFSET_S =
25 FRAME_OFFSET_r), the message encryption mode indicator
26 (ENCRYPT_MODE_S = ENCRYPT_MODE_r), and, if FREQ_INCL_r equals '1', the
27 Frequency Assignment (CDMACH_S = CDMA_FREQ_r).
 - 28 – The mobile station shall perform the following procedures in the order listed
29 below:
 - 30 + If D SIG ENCRYPT MODE_r is included, the mobile station shall perform
31 the following:
 - 32 o If D SIG ENCRYPT MODE_r is equal to '000', the mobile station shall
33 set D SIG ENCRYPT MODE_S to C SIG ENCRYPT MODE_S; otherwise,
34 the mobile station shall set D SIG ENCRYPT MODE_S to
35 D SIG ENCRYPT MODE_r, ENC KEY_S to the most recently generated
36 CMEAKEY in the mobile station associated with the AUTHR of the
37 *Origination Message*, and EXT ENCRYPT SEQ[0] and
38 EXT ENCRYPT SEQ[1] to 256 × ENC SEQ H (the ENC SEQ H field
39 in the *Origination Message*).

- 1 ± If USE_NEW_KEY_r is not included, or is included and is set to '1', the
 2 mobile station shall use the session key generated at the most recent
 3 registration for encryption of signaling and user information. The mobile
 4 station shall store the session key in KEY_s[KEY_SEQ_NEW_{s,p}]. The
 5 mobile station shall store KEY_SIZE_r to KEY_SIZE_s. The mobile station
 6 shall then increment the variable KEY_SEQ_NEW_{s,p} by one (modulo 16).
 7 If ENC_KEY_SIZE_r is included, the mobile station shall set
 8 ENC_KEY_SIZE_s to ENC_KEY_SIZE_r.
- 9 — If USE_NEW_KEY_r is included and is set to '0' then the mobile station
 10 shall use KEY_s[KEY_SEQ_r] as the session key.
- 11 + If C_SIG_ENCRYPT_MODE is included, the mobile station shall set
 12 C_SIG_ENCRYPT_MODE_s to C_SIG_ENCRYPT_MODE_r.
- 13 – If PACA_S is equal to enabled, the mobile station shall set PACA_S to disabled
 14 and PACA_CANCEL to '0', shall disable the PACA state timer, and should
 15 indicate to the user that the PACA call is proceeding.
 - 16 – The mobile station shall initialize the CODE_CHAN_LIST as described in
 17 2.6.8, shall set SERV_NEG_S to disabled, and shall enter the *Traffic Channel*
 18 Initialization Substate of the *Mobile Station Control on the Traffic Channel*
 19 State.
 - 20 • If ASSIGN_MODE_r equals '001', the mobile station shall perform the following
 21 actions:
 - 22 – If the message requires acknowledgement, the mobile station shall wait until
 23 Layer 3 receives an indication from Layer 2 that the acknowledgement to the
 24 message has been sent and acknowledged.
 - 25 – If a CDMA channel (CDMA_FREQ) is specified in the assignment, the mobile
 26 station shall set CDMACH_S = CDMA_FREQ_r, tune to the new Frequency
 27 Assignment, and measure the strength of each pilot listed in the assignment
 28 using the Neighbor Set search procedures specified in 2.6.6.2.1 and
 29 2.6.6.2.2.
 - 30 – The mobile station shall set CONFIG_MSG_SEQ_S and ACC_MSG_SEQ_S to
 31 NULL (see 2.6.2.2) and shall set PILOT_PN_S to the pilot PN sequence offset of
 32 the strongest pilot in the list.
 - 33 – If the mobile station has not stored configuration parameters for the Primary
 34 Paging Channel of the new base station, or if the stored information is not
 35 current (see 2.6.2.2), the mobile station shall set SYS_PAR_MSG_SEQ_S,
 36 NGHBR_LST_MSG_SEQ_S, EXT_NGHBR_LST_MSG_SEQ_S,
 37 GEN_NGHBR_LST_MSG_SEQ_S, CHAN_LST_MSG_SEQ_S,
 38 EXT_CHAN_LST_MSG_SEQ_S, EXT_SYS_PAR_MSG_SEQ_S,
 39 USER_ZONE_ID_MSG_SEQ_S, PRI_NGHBR_LIST_MSG_SEQ_S,
 40 GLOB_SERV_REDIR_MSG_SEQ_S, and EXT_GLOB_SERV_REDIR_MSG_SEQ_S
 41 to NULL.

- 1 — ~~If the mobile station has not stored configuration parameters for the Primary~~
 2 ~~Forward Common Control Channel of the new base station, or if the stored~~
 3 ~~information is not current (see 2.6.2.2), the mobile station shall set~~
 4 ~~EXT_NGHBR_LST_MSG_SEQ_S, GEN_NGHBR_LST_MSG_SEQ_S,~~
 5 ~~EXT_CHAN_LST_MSG_SEQ_S, EXT_SYS_PAR_MSG_SEQ_S,~~
 6 ~~USER_ZONE_ID_MSG_SEQ_S, PRI_NGHBR_LIST_MSG_SEQ_S,~~
 7 ~~GLOB_SERV_REDIR_MSG_SEQ_S, A41_SYS_PAR_MSG_SEQ_S,~~
 8 ~~MC_RR_PAR_MSG_SEQ_S, UNIV_NGHBR_LIST_MSG_SEQ_S and~~
 9 ~~EXT_GLOB_SERV_REDIR_MSG_SEQ_S to NULL.~~
- 10 — The mobile station shall set PAGE_CHAN_S to '1' and PAGECH_S to the Primary
 11 Paging Channel. ~~If the mobile station was monitoring Forward Common~~
 12 ~~Control Channel, the mobile station shall set the PRAT_S to '00'~~. The mobile
 13 station shall then begin monitoring the Primary Paging Channel of the
 14 selected base station.
- 15 — ~~The mobile station shall set FCCCH_CHAN_S to '1' and FCCCH_ID_S to the~~
 16 ~~Primary Forward Common Control Channel. The mobile station shall then~~
 17 ~~begin monitoring the Primary Forward Common Control Channel of the~~
 18 ~~selected base station.~~
- 19 — If RESPOND_r is equal to '1', the mobile station shall enter the *Update*
 20 *Overhead Information Substate* with an origination indication.
- 21 • If ASSIGN_MODE_r equals '010', the mobile station shall perform the following
 22 actions:
- 23 — If the mobile station does not support analog operation in the requested
 24 band class, the mobile station shall send a *Mobile Station Reject Order* with
 25 the ORDQ field set to '00000110' (capability not supported by the mobile
 26 station) and the mobile station shall remain in the *Mobile Station Origination*
 27 *Attempt Substate*.
- 28 — If the mobile station supports analog operation in the requested band class
 29 and RESPOND_r equals '1', the mobile station shall perform the following
 30 actions:
- 31 + If USE_ANALOG_SYS_r equals '0', the mobile station shall perform the
 32 following actions:
- 33 o If PACA_S is equal to enabled, the mobile station shall set PACA_S to
 34 disabled and PACA_CANCEL to '0', shall disable the PACA state timer,
 35 and should indicate to the user that the PACA call has been canceled.
- 36 o The mobile station shall enter the analog Initialization Task with an
 37 origination indication (see 2.6.1).
- 38 + If USE_ANALOG_SYS_r equals '1', the mobile station shall perform the
 39 following actions:

- 1 o The mobile station shall set SERVSYS_S to SYS_A if ANALOG_SYS_r is
2 equal to '0', or shall set SERVSYS_S to SYS_B if ANALOG_SYS_r is equal
3 to '1'.
- 4 o If PACA_S is equal to enabled, the mobile station shall set PACA_S to
5 disabled and PACA_CANCEL to '0', shall disable the PACA state timer,
6 and should indicate to the user that the PACA call has been canceled.
- 7 o The mobile station shall then enter the analog Initialization Task with
8 an origination indication (see 2.6.1).
- 9 • If ASSIGN_MODE_r equals '011', the mobile station shall perform the following
10 actions:
 - 11 – If the mobile station does not support analog operation in the requested
12 band class, the mobile station shall send a *Mobile Station Reject Order* with
13 the ORDQ field set to '00000110' (capability not supported by the mobile
14 station) and the mobile station shall remain in the *Mobile Station Origination*
15 *Attempt Substate*.
 - 16 – If the mobile station supports analog operation in the requested band class:
 - 17 + If the analog channel type is '00', the mobile station shall perform the
18 following actions:
 - 19 o The mobile station shall store the system identification (SID_S = SID_r),
20 the voice mobile station attenuation code (VMAC_S = VMAC_r), the voice
21 channel number (ANALOG_CHAN_S = ANALOG_CHAN_r), the SAT color
22 code (SCC_S = SCC_r), and the message encryption mode indicator
23 (MEM_S = MEM_r).
 - 24 o The mobile station shall set DTX_S to '00'.
 - 25 o If PACA_S is equal to enabled, the mobile station shall set PACA_S to
26 disabled and PACA_CANCEL to '0', shall disable the PACA state timer,
27 and should indicate to the user that the PACA call is proceeding.
 - 28 o The mobile station shall enter the Confirm Initial Voice Channel Task
29 (see 2.6.4.2) with an origination indication.
 - 30 + If the analog channel type is not '00', the mobile station shall perform the
31 following actions:
 - 32 o If the mobile supports narrow analog mode, the mobile station shall
33 perform the following actions:
 - 34 ◊ The mobile station shall store the system identification (SID_S =
35 SID_r), the voice mobile station attenuation code (VMAC_S =
36 VMAC_r), the voice channel number (ANALOG_CHAN_S =
37 ANALOG_CHAN_r), the message encryption mode indicator (MEM_S
38 = MEM_r), the analog channel type (AN_CHAN_TYPE_S =
39 AN_CHAN_TYPE_r) and the digital SAT code (DSCC_S = DSCC_MSBR
40 × 4 + SCC_r).

- 1 ◊ The mobile station shall set DTX_S to '00'.
- 2 ◊ If PACA_S is equal to enabled, the mobile station shall set PACA_S to
3 disabled, shall disable the PACA state timer, and should indicate
4 to the user that the PACA call is proceeding.
- 5 ◊ The mobile station shall enter the Confirm Initial Narrow Analog
6 Voice Channel Task (see 2.6.5.2A of [22]) with an origination
7 indication.
- 8 o If the mobile station does not support narrow analog mode, the
9 mobile station shall send a *Mobile Station Reject Order* with the ORDQ
10 field set to '00000110' (capability not supported by the mobile station)
11 and the mobile station shall remain in the *Mobile Station Origination*
12 *Attempt Substate* of the *System Access State*.
- 13 • If ASSIGN_MODE_r equals '100', the mobile station shall perform the following
14 actions:
- 15 – The mobile station shall set CH_IND_S to '01'.
- 16 – If GRANTED_MODE_r equals '00', and the multiplex option or radio
17 configuration specified in the DEFAULT_CONFIG field is not supported by
18 the mobile station, the mobile station shall send a *Mobile Station Reject Order*
19 with ORDQ field set to '00000110' (capability not supported by the mobile
20 station) and remain in *Mobile Station Origination Attempt Substate*.
- 21 – If FREQ_INCL_r equals '0', the mobile station shall perform the following
22 actions:
- 23 + The mobile station shall store the frame offset (FRAME_OFFSET_S =
24 FRAME_OFFSET_r), the message encryption mode indicator
25 (ENCRYPT_MODE_S = ENCRYPT_MODE_r), the granted mode
26 (GRANTED_MODE_S = GRANTED_MODE_r), and the default configuration
27 (DEFAULT_CONFIG_S = DEFAULT_CONFIG_r).
- 28 + The mobile station shall perform the following procedures in the order
29 listed below:
- 30 o If D SIG ENCRYPT MODE_r is included, the mobile station shall
31 perform the following:
- 32 ◊ If D SIG ENCRYPT MODE_r is equal to '000', the mobile station
33 shall set D SIG ENCRYPT MODE_S to C SIG ENCRYPT MODE_S;
34 otherwise, the mobile station shall set D SIG ENCRYPT MODE_S
35 to D SIG ENCRYPT MODE_r, ENC KEY_S to the most recently
36 generated CMEAKEY in the mobile station, associated with the
37 AUTHR of the *Origination Message*, and EXT ENCRYPT SEQ[0]
38 and EXT ENCRYPT SEQ[1] to 256 × ENC SEQ H (the
39 ENC SEQ H field in the *Origination Message*).

1 o If USE_NEW_KEY_r is not included, or is included and is set to '1', the
 2 mobile station shall use the session key generated at the most recent
 3 registration for encryption of signaling and user information. The
 4 mobile station shall store the session key in KEY_s[KEY_SEQ_NEW_s
 5 p]. The mobile station shall store KEY_SIZE_r to KEY_SIZE_s. The
 6 mobile station shall then increment the variable KEY_SEQ_NEW_sp
 7 by one (modulo 16). If ENC_KEY_SIZE_r is included, the mobile station
 8 shall set ENC_KEY_SIZE_s to ENC_KEY_SIZE_r.

9 + If USE_NEW_KEY_r is included and is set to '0' then the mobile station
 10 shall use KEY_s[KEY_SEQ_r] as the session key.

11 o If C_SIG_ENCRYPT_MODE is included, the mobile station shall set
 12 C_SIG_ENCRYPT_MODE_s to C_SIG_ENCRYPT_MODE_r.

- 13 + The mobile station shall set SERV_NEG_s to enabled.
- 14 + If PACA_S is equal to enabled, the mobile station shall set PACA_S equal to
 15 disabled and PACA_CANCEL to '0', shall disable the PACA state timer,
 16 and should indicate to the user that the PACA call is proceeding.
- 17 + The mobile station shall initialize CODE_CHAN_LIST as described in
 18 2.6.8.
- 19 + The mobile station shall then enter the *Traffic Channel Initialization*
 20 *Substate* of the *Mobile Station Control on the Traffic Channel State*.

- 21 - If FREQ_INCL_r equals '1', the mobile station shall perform the following
 22 actions:
 - 23 + If the band class is not supported by the mobile station, the mobile
 24 station shall send a *Mobile Station Reject Order* with ORDQ field set to
 25 '00000110' (capability not supported by the mobile station) and remain in
 26 the *Mobile Station Origination Attempt Substate*.
 - 27 + If the band class is supported by the mobile station, the mobile station
 28 shall perform the following actions:
 - 29 o The mobile station shall store the frame offset (FRAME_OFFSET_s =
 30 FRAME_OFFSET_r), the message encryption mode indicator
 31 (ENCRYPT_MODE_s = ENCRYPT_MODE_r), the granted mode
 32 (GRANTED_MODE_s = GRANTED_MODE_r), the default configuration
 33 (DEFAULT_CONFIG_s = DEFAULT_CONFIG_r), the band class
 34 (CDMABAND_s = BAND_CLASS_r), and the Frequency Assignment
 35 (CDMACH_s = CDMA_FREQ_r).

36 o The mobile station shall perform the following procedures in the order
 37 listed below:

38 ◊ If D_SIG_ENCRYPT_MODE_r is included, the mobile station shall
 39 perform the following:

40 - If D_SIG_ENCRYPT_MODE_r is equal to '000', the mobile

1 station shall set D SIG ENCRYPT MODE_S to
 2 C SIG ENCRYPT MODE_S; otherwise, the mobile station shall
 3 set D SIG ENCRYPT MODE_S to D SIG ENCRYPT MODE_r.
 4 ENC KEY_S to the most recently generated CMEAKEY in the
 5 mobile station, associated with the AUTHR of the *Origination*
 6 Message, and EXT ENCRYPT SEQ[0] and
 7 EXT ENCRYPT SEQ[1] to 256 × ENC SEQ H (the
 8 ENC SEQ H field in the *Origination Message*).

- 9 ◊ ~~If USE_NEW_KEY_r is not included, or is included and is set to '1',~~
 10 ~~the mobile station shall use the session key generated at the most~~
 11 ~~recent registration for encryption of signaling and user~~
 12 ~~information. The mobile station shall store the session key in~~
 13 ~~KEY_S[KEY_SEQ_NEW_S.pl]. The mobile station shall store~~
 14 ~~KEY_SIZE_r to KEY_SIZE_S. The mobile station shall then~~
 15 ~~increment the variable KEY_SEQ_NEW_S.p by one (modulo 16). If~~
 16 ~~ENC KEY SIZE_r is included, the mobile station shall set~~
 17 ~~ENC KEY SIZE_S to ENC KEY SIZE_r.~~
- 18 ◊ ~~If USE_NEW_KEY_r is included and is set to '0' then the mobile~~
 19 ~~station shall use KEY_S[KEY_SEQ_r] as the session key.~~
- 20 ◊ If C SIG ENCRYPT MODE is included, the mobile station shall
 21 set C SIG ENCRYPT MODE_S to C SIG ENCRYPT MODE_r.

- 22 o The mobile station shall set SERV_NEG_S to enabled.
 23 o If PACA_S is equal to enabled, the mobile station shall set PACA_S to
 24 disabled and PACA_CANCEL to '0', shall disable the PACA state timer,
 25 and should indicate to the user that the PACA call is proceeding.
 26 o The mobile station shall initialize the CODE_CHAN_LIST as described
 27 in 2.6.8.
 28 o The mobile station shall then tune to the new Frequency Assignment
 29 and enter the *Traffic Channel Initialization Substate* of the *Mobile*
 30 *Station Control on the Traffic Channel State*.

- 31 • If ASSIGN_MODE_r equals '101', the mobile station shall perform the following
 32 actions:
 33 – If FREQ_INCL_r equals '0', the mobile station shall perform the following
 34 actions:
 35 + If the message requires acknowledgement, the mobile station shall wait
 36 until Layer 3 receives an indication from Layer 2 that the
 37 acknowledgement to the message has been sent and acknowledged.
 38 + The mobile station shall set CONFIG_MSG_SEQ_S and ACC_MSG_SEQ_S to
 39 NULL (see 2.6.2.2) and shall set PILOT_PNs to the pilot PN sequence
 40 offset of the strongest pilot in the list (PILOT_PN_r).

- + If the mobile station has not stored configuration parameters for the Primary Paging Channel of the new base station, or if the stored information is not current (see 2.6.2.2), the mobile station shall set SYS_PAR_MSG_SEQ_S, NGHBR_LST_MSG_SEQ_S, EXT_NGHBR_LST_MSG_SEQ_S, GEN_NGHBR_LST_MSG_SEQ_S, CHAN_LST_MSG_SEQ_S, EXT_CHAN_LST_MSG_SEQ_S, EXT_SYS_PAR_MSG_SEQ_S, USER_ZONE_ID_MSG_SEQ_S, PRI_NGHBR_LST_MSG_SEQ_S, GLOB_SERV_REDIR_MSG_SEQ_S, and EXT_GLOB_SERV_REDIR_MSG_SEQ_S to NULL.
- + ~~If the mobile station has not stored configuration parameters for the Primary Paging Channel of the new base station, or if the stored information is not current (see 2.6.2.2), the mobile station shall set EXT_NGHBR_LST_MSG_SEQ_S, GEN_NGHBR_LST_MSG_SEQ_S, EXT_CHAN_LST_MSG_SEQ_S, EXT_SYS_PAR_MSG_SEQ_S, USER_ZONE_ID_MSG_SEQ_S, PRI_NGHBR_LST_MSG_SEQ_S, GLOB_SERV_REDIR_MSG_SEQ_S, A41_SYS_PAR_MSG_SEQ_S, MC_RR_PAR_MSG_SEQ_S, UNIV_NGBHR_LST_MSG_SEQ_S, and EXT_GLOB_SERV_REDIR_MSG_SEQ_S to NULL.~~
- + The mobile station shall set PAGE_CHAN_S to '1' and PAGECH_S to the Primary Paging Channel. The mobile station shall then begin monitoring the Primary Paging Channel of the selected base station.
- + ~~The mobile station shall set FCCCH_CHAN_S to '1' and FCCCH_ID_S to the Primary Forward Common Control Channel. The mobile station shall then begin monitoring the Primary Forward Common Control Channel of the selected base station.~~
- + If RESPOND_r is equal to '1', the mobile station shall perform the following:
 - o If the *Channel Assignment Message* does not require an acknowledgment, the mobile station shall enter the *Update Overhead Information Substate* with a page response retransmission indication within T_{34m} seconds after receiving the *Channel Assignment Message*.
 - o If the *Channel Assignment Message* requires an acknowledgment, the mobile station shall enter the *Update Overhead Information Substate* with a page response retransmission indication within T_{34m} seconds after Layer 3 receives an indication from Layer 2 that the acknowledgement to the *Channel Assignment Message* has been sent and acknowledged.
- + If RESPOND_r is equal to '0', the mobile station shall perform the following:

- o If the *Channel Assignment Message* does not require an acknowledgment, the mobile station shall enter the *Mobile Station Idle State* within T_{34m} seconds after receiving the *Channel Assignment Message*.
 - o If the *Channel Assignment Message* requires an acknowledgment, the mobile station shall enter the *Mobile Station Idle State* within T_{34m} seconds after Layer 3 receives an indication from Layer 2 that the acknowledgement to the *Channel Assignment Message* has been sent and acknowledged.
- If FREQ_INCL_r equals '1', the mobile station shall perform the following actions:
- + If the band class is not supported by the mobile station, the mobile station shall send a *Mobile Station Reject Order* with ORDQ field set to '00000110' (capability not supported by the mobile station) and remain in the *Mobile Station Origination Attempt Substate*.
 - + If the band class is supported by the mobile station, the mobile station shall perform the following actions:
 - o If the message requires acknowledgement, the mobile station shall wait until Layer 3 receives an indication from Layer 2 that the acknowledgement to the message has been sent and acknowledged.
 - o The mobile station shall set CDMACH_s to CDMA_FREQ_r and CDMABAND_s to BAND_CLASS_r. Then the mobile station shall tune to the new Frequency Assignment, measure the strength of each pilot listed in the assignment using the Neighbor Set search procedures specified in 2.6.6.2.1 and 2.6.6.2.2, set PILOT_PNs to the pilot PN sequence offset of the strongest pilot in the list (PILOT_PNr), and set CONFIG_MSG_SEQ_s and ACC_MSG_SEQ_s to NULL (see 2.6.2.2).
 - o If the mobile station has not stored configuration parameters for the Primary Paging Channel of the new base station, or if the stored information is not current (see 2.6.2.2), the mobile station shall set SYS_PAR_MSG_SEQ_s, NGHBR_LST_MSG_SEQ_s, EXT_NGHBR_LST_MSG_SEQ_s, GEN_NGHBR_LST_MSG_SEQ_s, CHAN_LST_MSG_SEQ_s, EXT_CHAN_LST_MSG_SEQ_s, EXT_SYS_PAR_MSG_SEQ_s, USER_ZONE_ID_MSG_SEQ_s, PRI_NGHBR_LST_MSG_SEQ_s, GLOB_SERV_REDIR_MSG_SEQ_s, and EXT_GLOB_SERV_REDIR_MSG_SEQ_s to NULL.
 - o The mobile station shall set PAGE_CHAN_s to '1' and PAGECH_s to the Primary Paging Channel. The mobile station shall then begin monitoring the Primary Paging Channel of the selected base station.
 - o If RESPOND_r is equal to '1', the mobile station shall perform the following:

- ◊ If the *Channel Assignment Message* does not require an acknowledgment, the mobile station shall enter the *Update Overhead Information Substate* with a page response retransmission indication within T_{34m} seconds after receiving the *Channel Assignment Message*.
- ◊ If the *Channel Assignment Message* requires an acknowledgment, the mobile station shall enter the *Update Overhead Information Substate* with a page response retransmission indication within T_{34m} seconds after Layer 3 receives an indication from Layer 2 that the acknowledgement to the *Channel Assignment Message* has been sent and acknowledged.
- o If $RESPOND_r$ is equal to '0', the mobile station shall perform the following:
 - ◊ If the *Channel Assignment Message* does not require an acknowledgment, the mobile station shall enter the *Mobile Station Idle State* within T_{34m} seconds after receiving the *Channel Assignment Message*.
 - ◊ If the *Channel Assignment Message* requires an acknowledgment, the mobile station shall enter the *Mobile Station Idle State* within T_{34m} seconds after Layer 3 receives an indication from Layer 2 that the acknowledgement to the *Channel Assignment Message* has been sent and acknowledged.

4.5. Data Burst Message

5-6. Extended Channel Assignment Message: The mobile station shall process the message as follows:

- If $ASSIGN_MODE_r$ equals '000', the mobile station shall perform the following actions:
 - The mobile station shall set CH_IND_s to '01'.
 - If $P_REV_IN_USE_s$ is equal to or greater than six, the mobile station shall store the Forward Fundamental Channel Radio Configuration ($FOR_FCH_RC_s = FOR_FCH_RC_r$) and the Reverse Fundamental Channel Radio Configuration ($REV_FCH_RC_s = REV_FCH_RC_r$)
 - If $FREQ_INCL_r$ equals '0', the mobile station shall perform the following actions:
 - + The mobile station shall store the frame offset ($FRAME_OFFSET_s = FRAME_OFFSET_r$), the message encryption mode indicator ($ENCRYPT_MODE_s = ENCRYPT_MODE_r$), the granted mode ($GRANTED_MODE_s = GRANTED_MODE_r$), the default configuration ($DEFAULT_CONFIG_s = DEFAULT_CONFIG_r$), and the occurrences of PILOT_PN and PWR_COMB for each included member of the Active Set.

- + The mobile station shall perform the following procedures in the order listed below:
- o If D SIG ENCRYPT MODE_r is included, the mobile station shall perform the following:
 - ◊ If D SIG ENCRYPT MODE_r is equal to '000', the mobile station shall set D SIG ENCRYPT MODE_s to C SIG ENCRYPT MODE_s; otherwise, the mobile station shall set D SIG ENCRYPT MODE_s to D SIG ENCRYPT MODE_r, ENC KEY_s to the most recently generated CMEAKEY in the mobile station, associated with the AUTHR of the *Origination Message*, and EXT ENCRYPT SEQ[0] and EXT ENCRYPT SEQ[1] to $256 \times$ ENC SEQ H (the ENC SEQ H field in the *Origination Message*).
 - o If USE_NEW_KEY_r is not included, or is included and is set to '1', the mobile station shall use the session key generated at the most recent registration for encryption of signaling and user information. The mobile station shall store the session key in KEY_s[KEY_SEQ_NEW_s_p]. The mobile station shall store KEY_SIZE_r to KEY_SIZE_s. The mobile station shall then increment the variable KEY_SEQ_NEW_s_p by one (modulo 16). If ENC KEY SIZE_r is included, the mobile station shall set ENC KEY SIZE_s to ENC KEY SIZE_r.
 - + If USE_NEW_KEY_r is included and is set to '0' then the mobile station shall use KEY_s[KEY_SEQ_r] as the session key.
 - o If C SIG ENCRYPT MODE is included, the mobile station shall set C SIG ENCRYPT MODE_s to C SIG ENCRYPT MODE_r.
 - + The mobile station shall set SERV_NEG_s to enabled.
 - + If PACA_S is equal to enabled, the mobile station shall set PACA_S equal to disabled and PACA_CANCEL to '0', shall disable the PACA state timer, and should indicate to the user that the PACA call is proceeding.
 - + The mobile station shall initialize CODE_CHAN_LIST as described in 2.6.8.
 - + The mobile station shall set FPC_FCH_INIT_SETPT_s to FPC_FCH_INIT_SETPT_r, FPC_FCH_CURR_SETPT_s to FPC_FCH_INIT_SETPT_s, FPC_FCH_FER_s to FPC_FCH_FER_r, FPC_FCH_MIN_SETPT_s to FPC_FCH_MIN_SETPT_r, FPC_FCH_MAX_SETPT_s to FPC_FCH_MAX_SETPT_r, and FPC_PRI_CHAN_s to '0' if the mobile station supports any Radio Configuration greater than 2.
 - + The mobile station shall set FPC_SUBCHAN_GAIN_s to FPC_SUBCHAN_GAIN_r.
 - + The mobile station shall set REV_FCH_GATING_MODE_s to REV_FCH_GATING_MODE_r.

- + The mobile station shall set REV_PWR_CNTL_DELAY_s to REV_PWR_CNTL_DELAY_r if REV_PWR_CNTL_DELAY_INCL_r is equal to '1'.
- + The mobile station shall set RLGAIN_ADJ_s to RLGAIN_ADJ_r.
- + The mobile station shall then enter the *Traffic Channel Initialization Substate* of the *Mobile Station Control on the Traffic Channel State*.
- If FREQ_INCL_r equals '1', the mobile station shall perform the following actions:
 - + If the band class is not supported by the mobile station, the mobile station shall send a *Mobile Station Reject Order* with ORDQ field set to '00000110' (capability not supported by the mobile station) and remain in the *Mobile Station Origination Attempt Substate*.
 - + If the band class is supported by the mobile station, the mobile station shall perform the following actions:
 - o The mobile station shall store the frame offset (FRAME_OFFSET_s = FRAME_OFFSET_r); the message encryption mode indicator (ENCRYPT_MODE_s = ENCRYPT_MODE_r); the granted mode (GRANTED_MODE_s = GRANTED_MODE_r); the default configuration (DEFAULT_CONFIG_s = DEFAULT_CONFIG_r); the band class (CDMABAND_s = BAND_CLASS_r); the Frequency Assignment (CDMACH_s = CDMA_FREQ_r); and the occurrences of PILOT_PN and PWR_COMB_IND for each included member of the Active Set.
 - o The mobile station shall perform the following procedures in the order listed below:
 - ◊ If D SIG ENCRYPT MODE_r is included, the mobile station shall perform the following:
 - If D SIG ENCRYPT MODE_r is equal to '000', the mobile station shall set D SIG ENCRYPT MODE_s to C SIG ENCRYPT MODE_s; otherwise, the mobile station shall set D SIG ENCRYPT MODE_s to D SIG ENCRYPT MODE_r. ENC KEY_s to the most recently generated CMEKEY in the mobile station, associated with the AUTHR of the *Origination Message*, and EXT_ENCRYPT_SEQ[0] and EXT_ENCRYPT_SEQ[1] to 256 × ENC SEQ H (the ENC SEQ H field in the *Origination Message*).

- 1 ◊ If USE_NEW_KEY_r is not included, or is included and is set to '1',
 2 the mobile station shall use the session key generated at the most
 3 recent registration for encryption of signaling and user
 4 information. The mobile station shall store the session key in
 5 KEY_s[KEY_SEQ_NEW_{s,p}]. The mobile station shall store
 6 KEY_SIZE_r to KEY_SIZE_s. The mobile station shall then
 7 increment the variable KEY_SEQ_NEW_{s,p} by one (modulo 16). If
 8 ENC_KEY_SIZE_r is included, the mobile station shall set
 9 ENC_KEY_SIZE_s to ENC_KEY_SIZE_r.
- 10 e If USE_NEW_KEY_r is included and is set to '0' then the mobile
 11 station shall use KEY_s[KEY_SEQ_r] as the session key.
- 12 ◊ If C SIG ENCRYPT MODE is included, the mobile station shall
 13 set C SIG ENCRYPT MODE_s to C SIG ENCRYPT MODE_r.
- 14 o The mobile station shall set SERV_NEG_s to enabled.
- 15 o The mobile station shall initialize CODE_CHAN_LIST as described in
 16 2.6.8.
- 17 o The mobile station shall set FPC_FCH_INIT_SETPT_s to
 18 FPC_FCH_INIT_SETPT_r, FPC_FCH_CURR_SETPT_s to
 19 FPC_FCH_INIT_SETPT_s, FPC_FCH_FER_s to FPC_FCH_FER_r,
 20 FPC_FCH_MIN_SETPT_s to FPC_FCH_MIN_SETPT_r,
 21 FPC_FCH_MAX_SETPT_s to FPC_FCH_MAX_SETPT_r, and
 22 FPC_PRI_CHAN_s to '0' if the mobile station supports any Radio
 23 Configuration greater than 2.
- 24 o The mobile station shall set FPC_SUBCHAN_GAIN_s to
 25 FPC_SUBCHAN_GAIN_r.
- 26 o The mobile station shall set RLGAIN_ADJ_s to RLGAIN_ADJ_r.
- 27 o The mobile station shall set REV_FCH_GATING_MODE_s to
 28 REV_FCH_GATING_MODE_r.
- 29 o The mobile station shall set REV_PWR_CNTL_DELAY_s to
 30 REV_PWR_CNTL_DELAY_r if REV_PWR_CNTL_DELAY_INCL_r is equal
 31 to '1'.
- 32 o The mobile station shall then tune to the new Frequency Assignment
 33 and enter the *Traffic Channel Initialization Substate* of the *Mobile*
 34 *Station Control on the Traffic Channel State*.
- 35 – If GRANTED_MODE_r equals '00', and the multiplex option and radio
 36 configuration specified in the DEFAULT_CONFIG field is not supported by
 37 the mobile station, the mobile station shall send a *Mobile Station Reject Order*
 38 with ORDQ field set to '00000110' (capability not supported by the mobile
 39 station) and remain in the *Mobile Station Origination Attempt Substate*.

- If GRANTED_MODE_r equals '00' and DEFAULT_CONFIG_r is not equal to '100', the mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to '00001110' (RC does not match with DEFAULT_CONFIG_r) and shall remain in the *Mobile Station Origination Attempt Substate* if any of the following conditions is true:
 - + FOR_FCH_RC_r is not equal to the Radio Configuration associated with DEFAULT_CONFIG_r (see Table 3.7.2.3.2.21-2).
 - + REV_FCH_RC_r is not equal to the Radio Configuration associated with DEFAULT_CONFIG_r (see Table 3.7.2.3.2.21-2).
- If the mobile station does not support either of the Fundamental Channel Radio Configurations (FOR_FCH_RC or REV_FCH_RC), the mobile shall send a *Mobile Station Reject Order* with the ORDQ field set to '00000110' (capability not supported by the mobile station) and remain in the *Mobile Station Origination Attempt Substate*.
- If ASSIGN_MODE_r equals '001', the mobile station shall perform the following actions:
 - If FREQ_INCL_r equals '0', the mobile station shall perform the following actions:
 - + If the message requires acknowledgement, the mobile station shall wait until Layer 3 receives an indication from Layer 2 that the acknowledgement to the message has been sent and acknowledged.
 - + The mobile station shall set CONFIG_MSG_SEQ_S and ACC_MSG_SEQ_S to NULL (see 2.6.2.2) and shall set PILOT_PNs to the pilot PN sequence offset of the strongest pilot in the list (PILOT_PN_r).
 - + If the mobile station has not stored configuration parameters for the Primary Paging Channel of the new base station, or if the stored information is not current (see 2.6.2.2), the mobile station shall set SYS_PAR_MSG_SEQ_S, NGHBR_LST_MSG_SEQ_S, EXT_NGHBR_LST_MSG_SEQ_S, GEN_NGHBR_LST_MSG_SEQ_S, CHAN_LST_MSG_SEQ_S, EXT_CHAN_LST_MSG_SEQ_S, EXT_SYS_PAR_MSG_SEQ_S, USER_ZONE_ID_MSG_SEQ_S, PRI_NGHBR_LST_MSG_SEQ_S, GLOB_SERV_REDIR_MSG_SEQ_S, and EXT_GLOB_SERV_REDIR_MSG_SEQ_S to NULL.
 - + The mobile station shall set PAGE_CHAN_S to '1' and PAGECH_S to the Primary Paging Channel. If the mobile station was monitoring Forward Common Control Channel, the mobile station shall set the PRAT_S to '00'. The mobile station shall then begin monitoring the Primary Paging Channel of the selected base station.
 - + If RESPOND_r is equal to '1', the mobile station shall perform the following:

- o If the *Extended Channel Assignment Message* does not require an acknowledgment, the mobile station shall enter the *Update Overhead Information Substate* with a page response retransmission indication within T_{34m} seconds after receiving the *Extended Channel Assignment Message*.
 - o If the *Extended Channel Assignment Message* requires an acknowledgment, the mobile station shall enter the *Update Overhead Information Substate* with a page response retransmission indication within T_{34m} seconds after Layer 3 receives an indication from Layer 2 that the acknowledgement to the *Extended Channel Assignment Message* has been sent and acknowledged.
- If FREQ_INCL_r equals ‘1’, the mobile station shall perform the following actions:
- + If the band class is not supported by the mobile station, the mobile station shall send a *Mobile Station Reject Order* with ORDQ field set to ‘00000110’ (capability not supported by the mobile station) and remain in the *Mobile Station Origination Attempt Substate*.
 - + If the band class is supported by the mobile station, the mobile station shall perform the following actions:
 - o If the message requires acknowledgement, the mobile station shall wait until Layer 3 receives an indication from Layer 2 that the acknowledgement to the message has been sent and acknowledged.
 - o The mobile station shall set CDMACH_S to CDMA_FREQ_r and CDMABAND_S to BAND_CLASS_r. Then the mobile station shall tune to the new Frequency Assignment, measure the strength of each pilot listed in the assignment using the Neighbor Set search procedures specified in 2.6.6.2.1 and 2.6.6.2.2, set PILOT_PN_S to the pilot PN sequence offset of the strongest pilot in the list (PILOT_PN_r), and set CONFIG_MSG_SEQ_S and ACC_MSG_SEQ_S to NULL (see 2.6.2.2).
 - o If the mobile station has not stored configuration parameters for the Primary Paging Channel of the new base station, or if the stored information is not current (see 2.6.2.2), the mobile station shall set SYS_PAR_MSG_SEQ_S, NGHBR_LST_MSG_SEQ_S, EXT_NGHBR_LST_MSG_SEQ_S, GEN_NGHBR_LST_MSG_SEQ_S, CHAN_LST_MSG_SEQ_S, EXT_CHAN_LST_MSG_SEQ_S, EXT_SYS_PAR_MSG_SEQ_S, USER_ZONE_ID_MSG_SEQ_S, PRI_NGHBR_LST_MSG_SEQ_S, GLOB_SERV_REDIR_MSG_SEQ_S, and EXT_GLOB_SERV_REDIR_MSG_SEQ_S to NULL.
 - o The mobile station shall set PAGE_CHAN_S to ‘1’ and PAGECH_S to the Primary Paging Channel. The mobile station shall then begin monitoring the Primary Paging Channel of the selected base station.

- 1 o If RESPOND_r is equal to '1', the mobile station shall perform the
2 following:
 - 3 ◊ If the *Extended Channel Assignment Message* does not require an
4 acknowledgment, the mobile station shall enter the *Update
5 Overhead Information Substate* with a page response
6 retransmission indication within T_{34m} seconds after receiving the
7 *Extended Channel Assignment Message*.
 - 8 ◊ If the *Extended Channel Assignment Message* requires an
9 acknowledgment, the mobile station shall enter the *Update
10 Overhead Information Substate* with a page response
11 retransmission indication within T_{34m} seconds after Layer 3
12 receives an indication from Layer 2 that the acknowledgement to
13 the *Extended Channel Assignment Message* has been sent and
14 acknowledged.
- 15 • If ASSIGN_MODE_r equals '010', the mobile station shall perform the following
16 actions:
 - 17 – If the mobile station does not support analog operation in the requested
18 band class, the mobile station shall send a *Mobile Station Reject Order* with
19 ORDQ field set to '00000110' (capability not supported by the mobile station)
20 and remain in the *Mobile Station Origination Attempt Substate*.
 - 21 – If the mobile station supports analog operation in the requested band class,
22 the mobile station shall perform the following actions:
 - 23 + If RESPOND_r equals '1' and USE_ANALOG_SYS_r equals '0', the mobile
24 station shall enter the analog Initialization Task with an origination
25 indication (see 2.6.1).
 - 26 + If RESPOND_r equals '1' and USE_ANALOG_SYS_r equals '1', the mobile
27 station shall perform the following actions:
 - 28 o The mobile station shall set SERVSYSS to SYS_A if ANALOG_SYS_r is
29 equal to '0', or set SERVSYSS to SYS_B if ANALOG_SYS_r is equal to
30 '1'.
 - 31 o The mobile station shall then enter the analog Initialization Task with
32 an origination indication (see 2.6.1).
 - 33 • If ASSIGN_MODE_r equals '011', the mobile station shall perform the following
34 actions:
 - 35 – If the mobile station does not support analog operation in the requested
36 band class, the mobile station shall send a *Mobile Station Reject Order* with
37 the ORDQ field set to '00000110' (capability not supported by the mobile
38 station) and the mobile station shall remain in the *Mobile Station Origination
39 Attempt Substate*.
 - 40 – If the mobile station supports analog operation in the requested band class,
41 the mobile station shall perform the following actions:

- + If the analog channel type is '00', the mobile station shall perform the following actions:
 - o The mobile station shall store the system identification ($SID_S = SID_r$), voice mobile station attenuation code ($VMAC_S = VMAC_r$), voice channel number ($ANALOG_CHAN_S = ANALOG_CHAN_r$), SAT color code ($SCC_S = SCC_r$), and message encryption mode indicator ($MEM_S = MEM_r$).
 - o The mobile station shall set DTX_S to '00'.
 - o If $PACA_S$ is equal to enabled, the mobile station shall set $PACA_S$ to disabled and $PACA_CANCEL$ to '0', shall disable the $PACA$ state timer, and should indicate to the user that the $PACA$ call is proceeding.
 - o The mobile station shall enter the Confirm Initial Voice Channel Task (see 2.6.4.2) with an origination indication.
- + If the analog channel type is not '00', the mobile station shall perform the following actions:
 - o If the mobile supports narrow analog mode, the mobile station shall perform the following actions:
 - ◊ The mobile station shall store the system identification ($SID_S = SID_r$), voice mobile station attenuation code ($VMAC_S = VMAC_r$), voice channel number ($ANALOG_CHAN_S = ANALOG_CHAN_r$), message encryption mode indicator ($MEM_S = MEM_r$), analog channel type ($AN_CHAN_TYPE_S = AN_CHAN_TYPE_r$) and the digital SAT code ($DSCC_S = DSCC_MSB_r \times 4 + SCC_r$).
 - ◊ The mobile station shall set DTX_S to '00'.
 - ◊ If $PACA_S$ is equal to enabled, the mobile station shall set $PACA_S$ to disabled and $PACA_CANCEL$ to '0', shall disable the $PACA$ state timer, and should indicate to the user that the $PACA$ call is proceeding.
 - ◊ The mobile station shall enter the Confirm Initial Narrow Analog Voice Channel Task (see 2.6.5.2A of [22]) with an origination indication.
 - o If the mobile station does not support narrow analog mode, the mobile station shall send a *Mobile Station Reject Order* with the $ORDQ$ field set to '00000110' (capability not supported by the mobile station) and the mobile station shall remain in the *Mobile Station Origination Attempt Substate* of the *System Access State*.
- If $ASSIGN_MODE_r$ equals '100', the mobile station shall perform the following actions:

- If PACAs is equal to enabled, the mobile station shall set PACAs to disabled and PACA_CANCEL to ‘0’, shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.
- If GRANTED_MODE_r equals ‘00’ and the multiplex option and radio configuration specified in the DEFAULT_CONFIG_r field are not supported by the mobile station, the mobile station shall send a *Mobile Station Reject Order* with ORDQ field set to ‘00000110’ (capability not supported by the mobile station) and shall remain in the *Mobile Station Origination Attempt Substate*.
- If GRANTED_MODE_r equals ‘00’ and DEFAULT_CONFIG_r is not equal to ‘100’, the mobile station shall send a *Mobile Station Reject Order* with ORDQ field set to ‘00001110’ (RC does not match with DEFAULT_CONFIG) and shall remain in the *Mobile Station Origination Attempt Substate* if one of the following conditions is true:
 - + FOR_RC_r is not equal to the Radio Configuration associated with DEFAULT_CONFIG_r as specified in Table 3.7.2.3.2.21-2.
 - + REV_RC_r is not equal to the Radio Configuration associated with DEFAULT_CONFIG_r as specified in Table 3.7.2.3.2.21-2.
- If the mobile station does not support either of the Radio Configurations (FOR_RC or REV_RC), the mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to ‘00000110’ (capability not supported by the mobile station) and remain in the *Mobile Station Origination Attempt Substate*.
- If CH_IND_r = ‘01’ and the mobile station does not support the Fundamental Channel, the mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to ‘00000110’ (capability not supported by the mobile station) and remain in the *Mobile Station Origination Attempt Substate*.
- If CH_IND_r = ‘10’ and the mobile station does not support the Dedicated Control Channel, the mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to ‘00000110’ (capability not supported by the mobile station) and remain in the *Mobile Station Origination Attempt Substate*.
- If CH_IND_r = ‘11’ and the mobile station does not support the Dedicated Control Channel and Fundamental Channel concurrently, the mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to ‘00000110’ (capability not supported by the mobile station) and remain in the *Mobile Station Origination Attempt Substate*.
- If FREQ_INCL_r equals ‘1’ and if the band class (BAND_CLASS_r) is not supported by the mobile station, the mobile station shall send a *Mobile Station Reject Order* with ORDQ field set to ‘00000110’ (capability not supported by the mobile station) and remain in the *Mobile Station Origination Attempt Substate*.
- If the mobile station does not send a Mobile Station Reject Order as specified above, it shall continue to perform the actions specified below.

- If FREQ_INCL_r equals '1', the mobile station shall set
 - + CDMABAND_S = BAND_CLASS_r
 - + CDMACH_S = CDMA_FREQ_r
- The mobile station shall store the bypass indicator (BYPASS_ALERT_ANSWER_S = BYPASS_ALERT_ANSWER_r).
- The mobile station shall store granted mode (GRANTED_MODE_S = GRANTED_MODE_r)
- The mobile station shall store the default configuration (DEFAULT_CONFIG_S = DEFAULT_CONFIG_r).
- The mobile station shall store the Forward Traffic Channel Radio Configuration (FOR_RC_S = FOR_RC_r) and the Reverse Traffic Channel Radio Configuration (REV_RC_S = REV_RC_r).
- The mobile station shall store the frame offset (FRAME_OFFSET_S = FRAME_OFFSET_r).
- The mobile station shall store the message encryption mode indicator (ENCRYPT_MODE_S = ENCRYPT_MODE_r).
- The mobile station shall perform the following procedures in the order listed below:
 - + If D SIG ENCRYPT MODE_r is included, the mobile station shall perform the following:
 - o If D SIG ENCRYPT MODE_r is equal to '000', the mobile station shall set D SIG ENCRYPT MODE_S to C SIG ENCRYPT MODE_S; otherwise, the mobile station shall set D SIG ENCRYPT MODE_S to D SIG ENCRYPT MODE_r, ENC KEY_S to the most recently generated CMEAKEY in the mobile station, associated with the AUTHR of the *Origination Message*, and EXT ENCRYPT SEQ[0] to 256 × ENC SEQ H (the ENC SEQ H field in the *Origination Message*).
 - + If USE_NEW_KEY_r is not included, or is included and is set to '1', the mobile station shall use the session key generated at the most recent registration for encryption of signaling and user information. The mobile station shall store the session key in KEY_S[KEY_SEQ_NEW_{s,p}]. The mobile station shall store KEY_SIZE_r to KEY_SIZE_S. The mobile station shall then increment the variable KEY_SEQ_NEW_{s,p} by one (modulo 16). If ENC KEY SIZE_r is included, the mobile station shall set ENC KEY SIZE_S to ENC KEY SIZE_r.
 - ~~If USE_NEW_KEY_r is included and is set to '0' then the mobile station shall use KEY_S[KEY_SEQ_r] as the session key.~~
 - + If C SIG ENCRYPT MODE is included, the mobile station shall set C SIG ENCRYPT MODE_S to C SIG ENCRYPT MODE_r.

- The mobile station shall store the Forward power control subchannel relative gain ($FPC_SUBCHAN_GAIN_S = FPC_SUBCHAN_GAIN_r$).
- The mobile station shall set $RLGAIN_ADJ_S$ to $RLGAIN_ADJ_r$.
- The mobile station shall set $REV_FCH_GATING_MODE_S$ to $REV_FCH_GATING_MODE_r$.
- The mobile station shall set $REV_PWR_CNTL_DELAY_S$ to $REV_PWR_CNTL_DELAY_r$ if $REV_PWR_CNTL_DELAY_INCL_r$ is equal to ‘1’.
- If $3XFL_1XRL_INCL_r$ is equal to ‘1’, the mobile station shall set $1XRL_FREQ_OFFSET_S$ to $1XRL_FREQ_OFFSET_r$.
- The mobile station shall store the channel indicator ($CH_IND_S = CH_IND_r$) and the mobile station shall perform the following actions:
 - + If CH_IND_r equals ‘01’, the mobile station shall set $FPC_FCH_INIT_SETPT_S$ to $FPC_FCH_INIT_SETPT_r$, $FPC_FCH_CURR_SETPT_S$ to $FPC_FCH_INIT_SETPT_S$, $FPC_FCH_FER_S$ to $FPC_FCH_FER_r$, $FPC_FCH_MIN_SETPT_S$ to $FPC_FCH_MIN_SETPT_r$, $FPC_FCH_MAX_SETPT_S$ to $FPC_FCH_MAX_SETPT_r$, and $FPC_PRI_CHAN_S$ to ‘0’ if the mobile station supports any Radio Configuration greater than 2. Then for each included member of the Active Set, the mobile station shall store the following:
 - o Set the PILOT_PN field to $PILOT_PN_r$.
 - o Set the ADD_PILOT_REC_INCL field to $ADD_PILOT_REC_INCL_r$. If $ADD_PILOT_REC_INCL_r$ equals ‘1’, the mobile station shall store the following:
 - ◊ Set the PILOT_REC_TYPE field of PILOT_REC to $PILOT_REC_TYPE_r$.
 - ◊ If $PILOT_REC_TYPE_r$ equals ‘000’, the mobile station shall set the TD_POWER_LEVEL field of PILOT_REC to $TD_POWER_LEVEL_r$ and set the TD_MODE field of PILOT_REC to TD_MODE_r .
 - ◊ If $PILOT_REC_TYPE_r$ is equal to ‘001’, the mobile station shall
 - Set the AUX_PILOT_QOF field of PILOT_REC to QOF_r .
 - Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to $AUX_PILOT_WALSH_r$ with the Walsh Code length specified by $WALSH_LENGTH_r$.
 - ◊ If $PILOT_REC_TYPE_r$ is equal to ‘010’, the mobile station shall:
 - Set the AUX_PILOT_TD_QOF field of PILOT_REC to QOF_r .
 - Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to AUX_WALSH_r with the Walsh Code length specified by $WALSH_LENGTH_r$.

- 1 – Set the AUX_TD_POWER_LEVEL field of PILOT_REC to
2 AUX_TD_POWER_LEVEL_r.
- 3 – Set the TD_MODE field of PILOT_REC to TD_MODE_r.
- 4 ◊ If PILOT_REC_TYPE_r is equal to '011', the mobile station shall:
- 5 – Set the SR3_PRIMARY_PILOT field of PILOT_REC to
6 SR3_PRIMARY_PILOT_r.
- 7 – Set the SR3_PILOT_POWER1 field of PILOT_REC to
8 SR3_PILOT_POWER1_r.
- 9 – Set the SR3_PILOT_POWER2 field of PILOT_REC to
10 SR3_PILOT_POWER2_r.
- 11 ◊ If PILOT_REC_TYPE_r is equal to '100', the mobile station shall:
- 12 – Set the SR3_PRIMARY_PILOT field of PILOT_REC to
13 SR3_PRIMARY_PILOT_r.
- 14 – Set the SR3_PILOT_POWER1 field of PILOT_REC to
15 SR3_PILOT_POWER1_r.
- 16 – Set the SR3_PILOT_POWER2 field of PILOT_REC to
17 SR3_PILOT_POWER2_r.
- 18 – Set the AUX_PILOT_QOF field of PILOT_REC to QOF_r.
- 19 – Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to
20 AUX_PILOT_WALSH_r with the Walsh Code length specified by
21 WALSH_LENGTH_r.
- 22 – If ADD_INFO_INCL1_r is equal to '1', set the AUX_PILOT_QOF1
23 field of PILOT_REC to QOF1_r and set the
24 AUX_PILOT_WALSH_CODE1 field of PILOT_REC to
25 AUX_PILOT_WALSH1_r with the Walsh Code length specified
26 by WALSH_LENGTH1_r; otherwise, set the AUX_PILOT_QOF1
27 field of PILOT_REC to QOF_r and set the
28 AUX_PILOT_WALSH_CODE1 field of PILOT_REC to
29 AUX_PILOT_WALSH_r with the Walsh Code length specified by
30 WALSH_LENGTH_r.
- 31 – If ADD_INFO_INCL2_r is equal to '1', set the AUX_PILOT_QOF2
32 field of PILOT_REC to QOF2_r and set the
33 AUX_PILOT_WALSH_CODE2 field of PILOT_REC to
34 AUX_PILOT_WALSH2_r with the Walsh Code length specified
35 by WALSH_LENGTH2_r; otherwise, set the AUX_PILOT_QOF2
36 field of PILOT_REC to QOF_r and set the
37 AUX_PILOT_WALSH_CODE2 field of PILOT_REC to
38 AUX_PILOT_WALSH_r with the Walsh Code length specified by
39 WALSH_LENGTH_r.
- 40 o Set the PWR_COMB_IND field to PWR_COMB_IND_r.

- 1 o Set the CODE_CHAN_FCH field to CODE_CHAN_FCH_r.
- 2 o Set the QOF_MASK_ID_FCH field to QOF_MASK_ID_FCH_r.
- 3 + If CH_IND_r equals '01' and 3X_FCH_INFO_INCL_r equals to '1', for each
4 included member of the Active Set, the mobile station store the following:
- 5 o If 3X_FCH_LOW_INCL_r equals '1', set the QOF_MASK_ID_FCH_LOW
6 field to QOF_MASK_ID_FCH_LOW_r and the CODE_CHAN_FCH_LOW
7 field to CODE_CHAN_FCH_LOW_r. Otherwise, set the
8 QOF_MASK_ID_FCH_LOW field to QOF_MASK_ID_FCH_r and the
9 CODE_CHAN_FCH_LOW to CODE_CHAN_FCH_r.
- 10 o If 3X_FCH_HIGH_INCL_r equals '1', set the QOF_MASK_ID_FCH_HIGH
11 field to QOF_MASK_ID_FCH_HIGH_r and the CODE_CHAN_FCH_HIGH
12 field to CODE_CHAN_FCH_HIGH_r. Otherwise, set the
13 QOF_MASK_ID_FCH_HIGH field to QOF_MASK_ID_FCH_r and the
14 CODE_CHAN_FCH_HIGH to CODE_CHAN_FCH_r.
- 15 + If CH_IND_r equals '10', the mobile station shall set
16 FPC_DCCH_INIT_SETPT_S to FPC_DCCH_INIT_SETPT_r,
17 FPC_DCCH_CURR_SETPT_S to FPC_DCCH_INIT_SETPT_S,
18 FPC_DCCH_FER_S to FPC_DCCH_FER_r, FPC_DCCH_MIN_SETPT_S to
19 FPC_DCCH_MIN_SETPT_r, FPC_DCCH_MAX_SETPT_S to
20 FPC_DCCH_MAX_SETPT_r, and FPC_PRI_CHAN_S to '1' if the mobile station
21 supports any Radio Configuration greater than 2. Then for each included
22 member of the Active Set, the mobile station shall store the following:
- 23 o Set the PILOT_PN to PILOT_PN_r.
- 24 o Set the ADD_PILOT_REC_INCL field to ADD_PILOT_REC_INCL. If
25 ADD_PILOT_REC_INCL is equal to '1', the mobile station shall store
26 the following:
 - 27 ◊ Set the PILOT_REC_TYPE field of PILOT_REC to
28 PILOT_REC_TYPE_r.
 - 29 ◊ If PILOT_REC_TYPE_r equals '000', the mobile station shall set the
30 TD_POWER_LEVEL field of PILOT_REC to TD_POWER_LEVEL_r
31 and set the TD_MODE field of PILOT_REC to TD_MODE_r.
 - 32 ◊ If PILOT_REC_TYPE_r is equal to '001', the mobile station shall
 - 33 – Set the AUX_PILOT_QOF field of PILOT_REC to QOF_r.
 - 34 – Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to
35 AUX_PILOT_WALSH_r with the Walsh Code length specified by
36 WALSH_LENGTH_r.
 - 37 ◊ If PILOT_REC_TYPE_r is equal to '010', the mobile station shall:
 - 38 – Set the AUX_PILOT_TD_QOF field of PILOT_REC to QOF_r.

- Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to AUX_WALSH_r with the Walsh Code length specified by WALSH_LENGTH_r.
- Set the AUX_TD_POWER_LEVEL field of PILOT_REC to AUX_TD_POWER_LEVEL_r.
- Set the TD_MODE field of PILOT_REC to TD_MODE_r.
- ◊ If PILOT_REC_TYPE_r is equal to '011', the mobile station shall:
 - Set the SR3_PRIMARY_PILOT field of PILOT_REC to SR3_PRIMARY_PILOT_r.
 - Set the SR3_PILOT_POWER1 field of PILOT_REC to SR3_PILOT_POWER1_r.
 - Set the SR3_PILOT_POWER2 field of PILOT_REC to SR3_PILOT_POWER2_r.
- ◊ If PILOT_REC_TYPE_r is equal to '100', the mobile station shall:
 - Set the SR3_PRIMARY_PILOT field of PILOT_REC to SR3_PRIMARY_PILOT_r.
 - Set the SR3_PILOT_POWER1 field of PILOT_REC to SR3_PILOT_POWER1_r.
 - Set the SR3_PILOT_POWER2 field of PILOT_REC to SR3_PILOT_POWER2_r.
 - Set the AUX_PILOT_QOF field of PILOT_REC to QOF_r.
 - Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to AUX_PILOT_WALSH_r with the Walsh Code length specified by WALSH_LENGTH_r.
 - If ADD_INFO_INCL1_r is equal to '1', set the AUX_PILOT_QOF1 field of PILOT_REC to QOF1_r and set the AUX_PILOT_WALSH_CODE1 field of PILOT_REC to AUX_PILOT_WALSH1_r with the Walsh Code length specified by WALSH_LENGTH1_r; otherwise, set the AUX_PILOT_QOF1 field of PILOT_REC to QOF_r and set the AUX_PILOT_WALSH_CODE1 field of PILOT_REC to AUX_PILOT_WALSH_r with the Walsh Code length specified by WALSH_LENGTH_r.

- If ADD_INFO_INCL_{2r} is equal to '1', set the AUX_PILOT_QOF2 field of PILOT_REC to QOF_{2r} and set the AUX_PILOT_WALSH_CODE2 field of PILOT_REC to AUX_PILOT_WALSH_{2r} with the Walsh Code length specified by WALSH_LENGTH_{2r}; otherwise, set the AUX_PILOT_QOF2 field of PILOT_REC to QOF_r and set the AUX_PILOT_WALSH_CODE2 field of PILOT_REC to AUX_PILOT_WALSH_r with the Walsh Code length specified by WALSH_LENGTH_r.
 - o Set the PWR_COMB_IND field to PWR_COMB_IND_r.
 - o Set the CODE_CHAN_FCH field to CODE_CHAN_FCH_r.
 - o Set the QOF_MASK_ID_FCH field to QOF_MASK_ID_FCH_r.
 - o Set the DCCH_INCL field to DCCH_INCL_r. If DCCH_INCL_r equals '1', the mobile station shall store the following:
 - ◊ Set the CODE_CHAN_DCCH field to CODE_CHAN_DCCH_r.
 - ◊ Set the QOF_MASK_ID_DCCH field to QOF_MASK_ID_DCCH_r.
- + If CH_IND_r equals '10' and 3X_DCCH_INFO_INCL_r equals to '1', for each included member of the Active Set, the mobile station shall store the following:
 - o If 3X_DCCH_LOW_INCL_r equals '1', set the QOF_MASK_ID_DCCH_LOW field to QOF_MASK_ID_DCCH_LOW_r and the CODE_CHAN_DCCH_LOW field to CODE_CHAN_DCCH_LOW_r. Otherwise, set the QOF_MASK_ID_DCCH_LOW field to QOF_MASK_ID_FCH_r and the CODE_CHAN_DCCH_LOW to CODE_CHAN_FCH_r.
 - o If 3X_DCCH_HIGH_INCL_r equals '1', set the QOF_MASK_ID_DCCH_HIGH field to QOF_MASK_ID_DCCH_HIGH_r and the CODE_CHAN_DCCH_HIGH field to CODE_CHAN_DCCH_HIGH_r. Otherwise, set the QOF_MASK_ID_DCCH_HIGH field to QOF_MASK_ID_FCH_r and the CODE_CHAN_DCCH_HIGH to CODE_CHAN_FCH_r.

- 1 + If CH_IND_r equals '11', the mobile station shall set
 2 FPC_FCCH_INIT_SETPT_S to FPC_FCH_INIT_SETPT_r,
 3 FPC_FCH_CURR_SETPT_S to FPC_FCH_INIT_SETPT_S, FPC_FCH_FER_S to
 4 FPC_FCH_FER_r, FPC_FCH_MIN_SETPT_S to FPC_FCH_MIN_SETPT_r,
 5 FPC_FCH_MAX_SETPT_S to FPC_FCH_MAX_SETPT_r,
 6 FPC_DCCH_INIT_SETPT_S to FPC_DCCH_INIT_SETPT_r,
 7 FPC_DCCH_CURR_SETPT_S to FPC_DCCH_INIT_SETPT_S,
 8 FPC_DCCH_FER_S to FPC_DCCH_FER_r, FPC_DCCH_MIN_SETPT_S to
 9 FPC_DCCH_MIN_SETPT_r, FPC_DCCH_MAX_SETPT_S to
 10 FPC_DCCH_MAX_SETPT_r and FPC_PRI_CHAN_S to FPC_PRI_CHAN_r.
 11 Then for each included member of the Active Set, the mobile station shall
 12 store the following:
- 13 o Set the PILOT_PN to PILOT_PN_r.
- 14 o Set the ADD_PILOT_REC_INCL field to ADD_PILOT_REC. If
 15 ADD_PILOT_REC_INCL is equal to '1', the mobile station shall store
 16 the following:
- 17 ◊ Set the PILOT_REC_TYPE field of PILOT_REC to
 18 PILOT_REC_TYPE_r.
- 19 ◊ If PILOT_REC_TYPE_r equals '000', the mobile station shall set the
 20 TD_POWER_LEVEL field of PILOT_REC to TD_POWER_LEVEL_r
 21 and set the TD_MODE field of PILOT_REC to TD_MODE_r.
- 22 ◊ If PILOT_REC_TYPE_r is equal to '001', the mobile station shall
- 23 - Set the AUX_PILOT_QOF field of PILOT_REC to QOF_r.
- 24 - Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to
 25 AUX_PILOT_WALSH_r with the Walsh Code length specified by
 26 WALSH_LENGTH_r.
- 27 ◊ If PILOT_REC_TYPE_r is equal to '010', the mobile station shall:
- 28 - Set the AUX_PILOT_TD_QOF field of PILOT_REC to QOF_r.
- 29 - Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to
 30 AUX_WALSH_r with the Walsh Code length specified by
 31 WALSH_LENGTH_r.
- 32 - Set the AUX_TD_POWER_LEVEL field of PILOT_REC to
 33 AUX_TD_POWER_LEVEL_r.
- 34 - Set the TD_MODE field of PILOT_REC to TD_MODE_r.
- 35 ◊ If PILOT_REC_TYPE_r is equal to '011', the mobile station shall:
- 36 - Set the SR3_PRIMARY_PILOT field of PILOT_REC to
 37 SR3_PRIMARY_PILOT_r.
- 38 - Set the SR3_PILOT_POWER1 field of PILOT_REC to
 39 SR3_PILOT_POWER1_r.

- 1 – Set the SR3_PILOT_POWER2 field of PILOT_REC to
2 SR3_PILOT_POWER2_r.
- 3 ◊ If PILOT_REC_TYPE_r is equal to '100', the mobile station shall:
- 4 – Set the SR3_PRIMARY_PILOT field of PILOT_REC to
5 SR3_PRIMARY_PILOT_r.
- 6 – Set the SR3_PILOT_POWER1 field of PILOT_REC to
7 SR3_PILOT_POWER1_r.
- 8 – Set the SR3_PILOT_POWER2 field of PILOT_REC to
9 SR3_PILOT_POWER2_r.
- 10 – Set the AUX_PILOT_QOF field of PILOT_REC to QOF_r.
- 11 – Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to
12 AUX_PILOT_WALSH_r with the Walsh Code length specified by
13 WALSH_LENGTH_r.
- 14 – If ADD_INFO_INCL1_r is equal to '1', set the AUX_PILOT_QOF1
15 field of PILOT_REC to QOF1_r and set the
16 AUX_PILOT_WALSH_CODE1 field of PILOT_REC to
17 AUX_PILOT_WALSH1_r with the Walsh Code length specified
18 by WALSH_LENGTH1_r; otherwise, set the AUX_PILOT_QOF1
19 field of PILOT_REC to QOF_r and set the
20 AUX_PILOT_WALSH_CODE1 field of PILOT_REC to
21 AUX_PILOT_WALSH_r with the Walsh Code length specified by
22 WALSH_LENGTH_r.
- 23 – If ADD_INFO_INCL2_r is equal to '1', set the AUX_PILOT_QOF2
24 field of PILOT_REC to QOF2_r and set the
25 AUX_PILOT_WALSH_CODE2 field of PILOT_REC to
26 AUX_PILOT_WALSH2_r with the Walsh Code length specified
27 by WALSH_LENGTH2_r; otherwise, set the AUX_PILOT_QOF2
28 field of PILOT_REC to QOF_r and set the
29 AUX_PILOT_WALSH_CODE2 field of PILOT_REC to
30 AUX_PILOT_WALSH_r with the Walsh Code length specified by
31 WALSH_LENGTH_r
- 32 o Set the PWR_COMB_IND field to PWR_COMB_IND_r
- 33 o Set the CODE_CHAN_FCH field to CODE_CHAN_FCH_r.
- 34 o Set the QOF_MASK_ID_FCH field to QOF_MASK_ID_FCH_r.
- 35 o Set the CODE_CHAN_DCCH field to CODE_CHAN_DCCH_r.
- 36 o Set the QOF_MASK_ID_DCCH field to QOF_MASK_ID_DCCH_r.
- 37 + If CH_IND_r equals '11' and 3X_FCH_INFO_INCL_r equals to '1', for each
38 included member of the Active Set, the mobile station store the following:

- 1 o If $3X_{FCH_LOW_INCL_r}$ equals '1', set the $QOF_MASK_ID_FCH_LOW$
2 field to $QOF_MASK_ID_FCH_LOW_r$ and the $CODE_CHAN_FCH_LOW$
3 field to $CODE_CHAN_FCH_LOW_r$. Otherwise, set the
4 $QOF_MASK_ID_FCH_LOW$ field to $QOF_MASK_ID_FCH_r$ and the
5 $CODE_CHAN_FCH_LOW$ to $CODE_CHAN_FCH_r$.
- 6 o If $3X_{FCH_HIGH_INCL_r}$ equals '1', set the $QOF_MASK_ID_FCH_HIGH$
7 field to $QOF_MASK_ID_FCH_HIGH_r$ and the $CODE_CHAN_FCH_HIGH$
8 field to $CODE_CHAN_FCH_HIGH_r$. Otherwise, set the
9 $QOF_MASK_ID_FCH_HIGH$ field to $QOF_MASK_ID_FCH_r$ and the
10 $CODE_CHAN_FCH_HIGH$ to $CODE_CHAN_FCH_r$.
- 11 + If CH_IND_r equals '11' and $3X_{DCCH_INFO_INCL_r}$ equals to '1', for each
12 included member of the Active Set, the mobile station store the following:
- 13 o If $3X_{DCCH_LOW_INCL_r}$ equals '1', set the
14 $QOF_MASK_ID_DCCH_LOW$ field to $QOF_MASK_ID_DCCH_LOW_r$ and
15 the $CODE_CHAN_DCCH_LOW$ field to $CODE_CHAN_DCCH_LOW_r$.
16 Otherwise, set the $QOF_MASK_ID_DCCH_LOW$ field to
17 $QOF_MASK_ID_FCH_r$ and the $CODE_CHAN_DCCH_LOW$ to
18 $CODE_CHAN_FCH_r$.
- 19 o If $3X_{DCCH_HIGH_INCL_r}$ equals '1', set the
20 $QOF_MASK_ID_DCCH_HIGH$ field to $QOF_MASK_ID_DCCH_HIGH_r$
21 and the $CODE_CHAN_DCCH_HIGH$ field to
22 $CODE_CHAN_DCCH_HIGH_r$. Otherwise, set the
23 $QOF_MASK_ID_DCCH_HIGH$ field to $QOF_MASK_ID_FCH_r$ and the
24 $CODE_CHAN_DCCH_HIGH$ to $CODE_CHAN_FCH_r$.
- 25 - The mobile station shall initialize $CODE_CHAN_LIST$ as described in 2.6.8,
26 and shall set $SERV_NEG_S$ to enabled.
- 27 - If $FREQ_INCL_r$ equals '1', the mobile station shall then tune to the new
28 frequency assignment.
- 29 - The mobile station shall then enter the *Traffic Channel Initialization Substate*
30 of the *Mobile Station Control on the Traffic Channel State*.

31 **6.7. Feature Notification Message:** If $RELEASE_r$ is equal to '1', the mobile station
32 shall enter the *Mobile Station Idle State* or the *System Determination Substate* of the
33 *Mobile Station Initialization State* with a release indication (see 2.6.1.1).

34 **7.8. Intercept Order:** The mobile station shall enter the *Mobile Station Idle State*.

35 **8.9. Local Control Order**

36 **9.10. Lock Until Power-Cycled Order:** The mobile station shall disable its transmitter
37 and record the reason for the *Lock Until Power-Cycled Order* in the mobile station's
38 semi-permanent memory ($LCKRSN_{P_{S-p}}$ equals the least significant four bits of
39 $ORDQ_r$). The mobile station should notify the user of the locked condition. The
40 mobile station shall enter the *System Determination Substate* of the *Mobile Station*
41 *Initialization State* with a lock indication (see 2.6.1.1), and shall not enter the *System*

1 Access State again until after the next mobile station power-up or until it has
 2 received an *Unlock Order*. This requirement shall take precedence over any other
 3 mobile station requirement specifying entry to the *System Access State*.

4 **10-11. Maintenance Required Order:** The mobile station shall record the reason for the
 5 *Maintenance Required Order* in the mobile station's semi-permanent memory
 6 ($\text{MAINTRSN}_{\text{S-p}}$ equals the least significant four bits of ORDQ_r). The mobile station
 7 shall remain in the unlocked condition. The mobile station should notify the user of
 8 the maintenance required condition.

9 **11-12. PACA Message:** If P_REV_IN_USE_S is less than or equal to four and the mobile
 10 station does not support PACA capability, the mobile station shall send a *Mobile*
 11 *Station Reject Order* with the ORDQ field set to '00000110' (message requires a
 12 capability that is not supported by the mobile station); otherwise, the mobile station
 13 shall process the message as follows:

- 14 • If PACAS_S is equal to disabled, the mobile station shall perform the following
 15 actions:
 - 16 – If the purpose of the message is to respond to an *Origination Message*
 (PURPOSE_r is equal to '0000'), the mobile station shall perform the following
 actions:
 - 19 + The mobile station shall set PACAS_S to enabled and shall set PACA_SID_S to
 SID_S .
 - 21 + The mobile station shall set the PACA state timer to the duration shown
 in Table 3.7.2.3.2.20-2 corresponding to the value of PACA_TIMEOUT_S .
 - 23 + The mobile station should indicate to the user that the call has been
 queued as a PACA call, and should indicate the current queue position
 (Q_POS_r) of the call.
 - 26 + The mobile station shall enter the *Mobile Station Idle State*.
 - 27 – If the purpose of the message is to cancel the PACA call (PURPOSE_r is equal
 to '0011'), the mobile station shall perform the following actions:
 - 29 + The mobile station shall set PACAS_S to disabled and PACA_CANCEL to '0',
 shall disable the PACA state timer, and should indicate to the user that
 the PACA call has been canceled.
 - 32 + The mobile station shall enter the *Mobile Station Idle State*.
 - 33 – If the purpose of the message is anything else (PURPOSE_r is not equal to
 '0000' or '0011'), the mobile station shall ignore the message. The mobile
 station shall remain in the *Mobile Station Origination Attempt Substate*.
- 36 • If PACAS_S is equal to enabled, the mobile station shall perform the following
 37 actions:
 - 38 – If the purpose of the message is to respond to an *Origination Message*
 (PURPOSE_r is equal to '0000'), the mobile station shall perform the following
 actions:

- + The mobile station should indicate to the user that the PACA call is still queued, and should indicate to the user the current queue position (Q_{POS_r}) of the call.
- + The mobile station shall set the PACA state timer to the duration shown in Table 3.7.2.3.2.20-2 corresponding to the value of $PACA_TIMEOUT_s$.
- + The mobile station shall enter the *Mobile Station Idle State*.
- If the purpose of the message is to provide the queue position of the PACA call ($PURPOSE_r$ is equal to '0001'), the mobile station shall perform the following actions:
 - + The mobile station should indicate to the user that the PACA call is still queued, and should indicate the current queue position (Q_{POS_r}) of the call.
 - + The mobile station shall set the PACA state timer to the duration shown in Table 3.7.2.3.2.20-2 corresponding to the value of $PACA_TIMEOUT_s$.
 - + The mobile station shall enter the *Mobile Station Idle State*.
- If the purpose of the message is to instruct the mobile station to re-originate the PACA call ($PURPOSE_r$ is equal to '0010'), the mobile station shall remain in the *Mobile Station Origination Attempt Substate*.
- If the purpose of the message is to cancel the PACA call ($PURPOSE_r$ is equal to '0011'), the mobile station shall perform the following actions:
 - + The mobile station shall set $PACAs$ to disabled, shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.
 - + The mobile station shall enter the *Mobile Station Idle State*.

4.2.13. Registration Accepted Order:

- If $ORDQ_r = '00000101'$, the mobile station shall set $ROAM_INDI_s = \text{to ROAM_INDI}_r$ and should display the roaming condition.
- If $ORDQ_r = '00000111'$, the mobile station shall perform the following
 - The mobile station shall set $ROAM_INDI_s = ROAM_INDI_r$ and should display the roaming condition.
 - The mobile station shall set $C_SIG_ENCRYPT_MODE_s = \text{to } C_SIG_ENCRYPT_MODE_r$.
 - ~~If $USE_NEW_KEY_r$ is not included, or is included and is set to '1', the mobile station shall use the session key generated at the most recent registration for encryption of signaling and user information. The mobile station shall store the session key in $KEY_s[KEY_SEQ_NEW_{s,p}]$. The mobile station shall store KEY_SIZE_r in KEY_SIZE_s . The mobile station shall increment the variable $KEY_SEQ_NEW_{s,p}$ by one (modulo 16). If $ENC_KEY_SIZE_r$ is included, the mobile station shall set $ENC_KEY_SIZE_s$ to $ENC_KEY_SIZE_r$.~~

- If USE_NEW_KEY_r is included and is set to '0', then the mobile station shall use KEY_s[KEY_SEQ_r] as the session key.
- If C SIG ENCRYPT MODE_r is not equal to '000', the mobile station shall set ENC KEY_s to the most recently generated CMKEY in the mobile station associated with the AUTHR of the *Registration Message*, and EXT ENCRYPT SEQ[0] and EXT ENCRYPT SEQ[1] to $256 \times \text{ENC SEQ H}$ (the ENC SEQ H field in the *Registration Message*).

13-14. Registration Rejected Order: This order indicates that normal service is not available on this system. The mobile station shall disable the full-TMSI timer. If the received order specifies to delete the TMSI (ORDQ = '00000100'), the mobile station shall set all the bits of the TMSI_CODE_{s-p} to '1'. The mobile station shall enter the *System Determination Substate* of the *Mobile Station Initialization State* with a registration rejected indication (see 2.6.1.1).

14-15. Release Order: If NDSS_ORIG_S is equal to enabled, the mobile station shall set NDSS_ORIG_S to disabled, and should indicate to the user that the call origination has been canceled. The mobile station shall enter the *Mobile Station Idle State* or the *System Determination Substate* of the *Mobile Station Initialization State* with a release indication (see 2.6.1.1). If the mobile station enters the *Mobile Station Idle State*, and if PACA_S is equal to enabled, the mobile station shall set PACA_S to disabled and PACA_CANCEL to '0', shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.

15-16. Reorder Order: If NDSS_ORIG_S is equal to enabled, the mobile station shall set NDSS_ORIG_S to disabled, and should indicate to the user that the call origination has been canceled. If PACA_S is equal to enabled, the mobile station shall set PACA_S to disabled and PACA_CANCEL to '0', shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled. The mobile station shall enter the *Mobile Station Idle State*.

16-17. Retry Order: ~~This order indicates that the origination is rejected and specifies the time before which the mobile station shall not send an Origination Message containing the same packet data Service Option.~~ The mobile station shall process the order as follows:

- If RETRY_TYPE_r is equal to '000', the mobile station shall set RETRY_DELAY_S[RETRY_TYPE] to 0, where RETRY_TYPE is equal to '001', '010', or '011'.
- If RETRY_TYPE_r is equal to '001', then the mobile station shall perform the following:
 - If RETRY_DELAY_r is equal to '00000000', then the mobile station shall set RETRY_DELAY_S[RETRY_TYPE_r] to 0.
 - If RETRY_DELAY_r is not equal to '00000000' the mobile station shall set RETRY_DELAY_S as follows:

- + If the most significant bit of the RETRY_DELAY_r is '0', set RETRY_DELAY_UNIT_s to 1000ms. If the most significant bit of the RETRY_DELAY_r is '1', set RETRY_DELAY_UNIT_s to 60000ms.
- + The mobile station shall set RETRY_DELAY_VALUE_s to the seven least significant bits of RETRY_DELAY_r.
- + The mobile station shall store the next system time 80 ms boundary + RETRY_DELAY_VALUE_s × RETRY_DELAY_UNIT_s ms as RETRY_DELAY_s[RETRY_TYPE_r].
- + If NDSS_ORIG_s is equal to enabled, the mobile station shall set NDSS_ORIG_s to disabled, and should indicate to the user that the call origination has been canceled. If PACA_s is equal to enabled, the mobile station shall set PACA_s to disabled and PACA_CANCEL to '0', shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.
- + The mobile station shall enter the *Mobile Station Idle State*.

17.18. Security Mode Command Message: The mobile station shall process the message as follows:

- The mobile station shall set C_SIG_ENCRYPT_MODE_s to C_SIG_ENCRYPT_MODE_r.
- ~~If USE_NEW_KEY_r is not included, or is included and is set to '1', the mobile station shall use the session key generated at the most recent registration for encryption of signaling and user information. The mobile station shall store the session key in KEY_s[KEY_SEQ_NEW_{s-p}]. The mobile station shall store KEY_SIZE_r in KEY_SIZE_s. The mobile station shall then increment the variable KEY_SEQ_NEW_{s-p} by one (modulo 16). If ENC KEY SIZE_r is included, the mobile station shall set ENC KEY SIZE_s to ENC KEY SIZE_r.~~
- ~~If USE_NEW_KEY_r is included and is set to '0', then the mobile station shall use KEY_s[KEY_SEQ_r] as the session key.~~

18.19. Service Redirection Message: The mobile station shall process the message as follows:

- If the mobile station is directed to an unsupported operation mode or band class, the mobile station shall respond with a *Mobile Station Reject Order* with ORDQ equal to '00000110' (message requires a capability that is not supported by the mobile station).
- If DELETE TMSI_r is equal to '1', the mobile station shall set all the bits of TMSI_CODE_{s-p} to '1'.
- The mobile station shall disable the full-TMSI timer.
- The mobile station shall set RETURN_IF_FAIL_s = RETURN_IF_FAIL_r.

- If RECORD_TYPE_r is '00000000', the mobile station shall set RETURN_IF_FAIL_s = RETURN_IF_FAIL_r, and enter the *System Determination Substate* of the *Mobile Station Initialization State* with an NDSS off indication (see 2.6.1.1); otherwise:
 - if REDIRECT_TYPE_r is '0', the mobile station shall store the redirection record received in the message as REDIRECT_REC_s and shall enter the System Determination Substate of the *Mobile Station Initialization State* with a redirection indication (see 2.6.1.1).
 - if REDIRECT_TYPE_r is '1', the mobile station shall store the redirection record received in the message as REDIRECT_REC_s and shall enable NDSS_ORIG_s, and shall record the dialed digits (if any). The mobile station shall enter the System Determination Substate of the *Mobile Station Initialization State* with a redirection indication (see 2.6.1.1).

19-20. SSD Update Message: The mobile station shall respond to the message as specified in 2.3.12.1.5.

20-21. Status Request Message: The mobile station shall disable the *System Access State* timer and respond to the message. If P_REV_IN_USE_s is less than or equal to three, the mobile station shall respond with a *Status Response Message*. If P_REV_IN_USE_s is greater than three, the mobile station shall respond with an *Extended Status Response Message*. If the message does not specify any qualification information (QUAL_INFO_TYPE_r is equal to '00000000'), the mobile station shall include the requested information records in the response. If the message specifies a band class (QUAL_INFO_TYPE_r is equal to '00000001'), the mobile station shall only include the requested information records for the specified band class (BAND_CLASS_r) in the response. If the message specifies a band class and an operating mode (QUAL_INFO_TYPE_r is equal to '00000010'), the mobile station shall only include the requested information records for the specified band class (BAND_CLASS_r) and operating mode (OP_MODE_r) in the response. If the message specifies a band class or a band class and an operating mode which are not supported by the mobile station, the mobile station shall send a *Mobile Station Reject Order* with ORDQ set to '00000110' (message requires a capability that is not supported by the mobile station). If the response to this message exceeds the allowable length, the mobile station shall send a *Mobile Station Reject Order* with ORDQ set to '00001000' (response message would exceed the allowable length). If the message specifies an information record which is not supported by the mobile station for the specified band class and operating mode, the mobile station shall send a *Mobile Station Reject Order* with ORDQ set to '00001001' (information record is not supported for the specified band class and operating mode).

21-22. TMSI Assignment Message: The mobile station shall store the TMSI zone and code as follows:

- The mobile station shall store the length of the TMSI zone field by setting ASSIGNING_TMSI_ZONE_LEN_{s-p} to TMSI_ZONE_LEN_r,

- 1 • The mobile station shall store the assigning TMSI zone number by setting the
2 ASSIGNING_TMSI_ZONE_LEN_{s-p} least significant octets of
3 ASSIGNING_TMSI_ZONE_{s-p} to TMSI_ZONE_r, and
- 4 • The mobile station shall store the TMSI code by setting TMSI_CODE_{s-p} to
5 TMSI_CODE_r.

6 The mobile station shall set the TMSI expiration time by setting TMSI_EXP_TIME_{s-p}
7 to TMSI_EXP_TIME_r. The mobile station shall disable the full-TMSI timer. The
8 mobile station shall then respond with a *TMSI Assignment Completion Message*
9 within T56m seconds.

10 [22.23. User Zone Reject Message](#)

11 [23.24. Any other message:](#) If the mobile station receives any other message specified in
12 Table 3.7.2.3-1, it shall ignore all Layer 3 fields. The mobile station shall ignore all
13 other messages.

14 [24. Base Station Reject Order:](#)

- 15 • ~~If ORDQ_r = '00000000', the mobile station shall set KEY_s to NULL and set
16 C_SIG_ENCRYPT_MODE to '000'. The mobile station shall re originate by
17 sending a new Origination Message.~~
- 18 • ~~If ORDQ_r = '00000001', the mobile station shall send a Security Mode Request
19 Message with the ENC_SIG_H field included in it. If the mobile receives two Base
20 Station Reject Orders without successfully decrypting any encrypted messages
21 from the base station between the orders, the mobile station shall set
22 REG_ENCRYPT_RESYN to YES and the mobile station shall go to the System
23 Determination Substate with an encryption failure indication.~~

24 If the mobile station performs an access probe handoff or access handoff and receives any
25 of the following messages, it shall process the message as specified in 2.6.3.1.3:

26 • [If the mobile station is currently monitoring the Paging Channel:](#)

- 27 1. *System Parameters Message*
- 28 2. *Access Parameters Message*
- 29 3. *Neighbor List Message*
- 30 4. *Extended System Parameters Message*
- 31 5. *Extended Neighbor List Message*
- 32 6. *General Neighbor List Message*
- 33 7. *Global Service Redirection Message*
- 34 8. *Extended Global Service Redirection Message*

35 • [If the mobile station is currently monitoring the Primary Broadcast Control Channel:](#)

- 36 1. *ANSI-41 System Parameters Message*
- 37 2. *Enhanced Access Parameters Message*

3. Universal Neighbor List Message
4. MC-RR Parameters Message
5. Extended Global Service Redirection Message

2.6.3.6 Registration Access Substate

In this substate, the mobile station sends a *Registration Message*. If the base station responds with an authentication request, the mobile station responds in this substate.

Upon entering the *Registration Access Substate*, the mobile station shall send the *Registration Message*.

If a message received from the base station requires a Layer 2 acknowledgment and does not require a Layer 3 response, Layer 3 shall indicate to Layer 2 that no response is outstanding (see 2.1.1.2.2.1 of [4]).

If a message received from the base station requires a Layer 2 acknowledgment and also a Layer 3 response, Layer 3 shall indicate to Layer 2 that a response is outstanding (see 2.1.1.2.2.1 of [4]).

When transmitting a response to a message received from the base station, Layer 3 shall indicate to Layer 2 that the type of the message is a response (see 2.1.1.2.2.1 of [4]).

When transmitting an autonomous message (i.e., a message that is not sent as a response to a message received from the base station) other than the *Registration Message*, Layer 3 shall indicate to Layer 2 that the type of the message is a request other than a registration request or a message transmission request (see 2.1.1.2.2.1 of [4]).

When transmitting an autonomous *Registration Message* (i.e., it is not sent as a response to a *Registration Request Order* received from the base station), Layer 3 shall indicate to Layer 2 that the type of the message is a request that is a registration (see 2.1.1.2.2.1 of [4]).

While in this substate, the mobile station shall monitor the Paging Channel or the Forward Common Control Channel. If the mobile station declares a loss of the Paging Channel or the Forward Common Control Channel (see [2.6.2.1.1.4](#) [2.6.3.1.8](#)), the mobile station shall perform the following:

- If PACA_S is equal to enabled, the mobile station shall set PACA_S to disabled and PACA_CANCEL to '0', shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.
- The mobile station shall declare an access attempt failure and update its registration variables as specified in 2.6.5.5.3.2.
- The mobile station shall disable its transmitter and enter the *Mobile Station Idle State*.

If the mobile station receives confirmation of delivery of any message sent by the mobile station in this substate, it shall then enter the *Mobile Station Idle State* unless:

- 1 • If the registration access was initiated due to a user direction to power down, the
2 mobile station shall update registration variables as specified in 2.6.5.5.3.3 and may
3 power down.
- 4 • If the mobile station has included the ENC_SEQ_H field in the *Registration Message*,
5 then the mobile station should set this field to one plus the previous value of this
6 field (if any).
- 7 • If the mobile station has included the ENC_SEQ_H field in the *Registration*
8 *Message*, then the mobile station shall set EXT_ENC_SEQ_S to $265 \times \text{ENC_SEQ_H}$.
- 9 • If the a message received from the base station requires a response, the mobile
10 station shall send a response to the message in this substate.

11 If the mobile station receives confirmation of delivery of the *Registration Message*, the
12 mobile station shall update its registration variables as specified in 2.6.5.5.3.1.

13 If the mobile station is directed by the user to originate a call, the mobile station may
14 process the origination request as follows:

- 15 • Layer 3 shall send an L2-Supervision.Request primitive to Layer 2 to abort any
16 access attempt in progress.
- 17 • If PACA_S is equal to enabled, the mobile station shall set PACA_S to disabled and
18 PACA_CANCEL to '0', shall disable the PACA state timer, and should indicate to the
19 user that the PACA call has been canceled.
- 20 • The mobile station shall enter the *Mobile Station Origination Attempt Substate* with
21 an origination indication.

22 If PACA_S is equal to enabled, the mobile station shall set PACA_CANCEL to '1' when the
23 user directs the mobile station to cancel a PACA call.

24 If the mobile station receives a mobile-station-addressed page, the mobile station may
25 determine if there is a page match (see 2.6.2.3). If a match is declared, the mobile station
26 shall perform the following:

- 27 • Layer 3 shall send an L2-Supervision.Request primitive to Layer 2 to abort any
28 access attempt in progress.
- 29 • The mobile station shall enter the *Page Response Substate*.

30 If the mobile station is to exit the *System Access State* as a result of processing Layer 3
31 fields of a message requiring an acknowledgment, the mobile station shall exit the *System*
32 *Access State* after Layer 3 receives an indication from Layer 2 that the acknowledgment to
33 the message has been sent and acknowledged.

34 If Layer 3 receives a message with an indication from Layer 2 that an access attempt for a
35 message being transmitted was not terminated as a result of processing the Layer 2 fields of
36 the received message, the mobile station shall ignore the received message.

37 The following directed messages and orders can be received. If any field value of the
38 message or order is outside its permissible range, the mobile station may send a *Mobile*
39 *Station Reject Order* with ORDQ equal to '00000100' (message field not in valid range).

- 1 1. *Authentication Challenge Message*: If the registration access was initiated due to a
2 user direction to power down, the mobile station shall ignore the message;
3 otherwise, the mobile station shall respond to the message as specified in
4 2.3.12.1.4, regardless of the value of AUTH_S.
- 5 2. *Base Station Challenge Confirmation Order*: If the registration access was initiated
6 due to a user direction to power down, the mobile station shall ignore the message;
7 otherwise, the mobile station shall respond to the message as specified in
8 2.3.12.1.5.

9 **3. Base Station Reject Order:**

- 10 • If ORDQ_R = '00000001', the mobile station shall send a *Security Mode Request*
11 *Message with the ENC SIG H field included in it. If the mobile receives two *Base**
12 *Station Reject Orders without successfully decrypting any encrypted messages*
13 *from the base station between the orders, the mobile station shall set*
14 *REG_ENCRYPT RESYNC to YES and the mobile station shall go to the *System**
15 *Determination Substate with an encryption failure indication.*

16 **34. Data Burst Message**

17 **45. Feature Notification Message**

18 **56. Local Control Order**

19 **67. Lock Until Power-Cycled Order**: The mobile station shall disable its transmitter and
20 record the reason for the *Lock Until Power-Cycled Order* in the mobile station's semi-
21 permanent memory (LCKRSN_{S-p} equals the least significant four bits of ORDQ_R).
22 The mobile station should notify the user of the locked condition. The mobile
23 station shall enter the *System Determination Substate* of the *Mobile Station*
24 *Initialization State* with a lock indication (see 2.6.1.1), and shall not enter the *System*
25 *Access State* again until after the next mobile station power-up or until it has
26 received an *Unlock Order*. This requirement shall take precedence over any other
27 mobile station requirement specifying entry to the *System Access State*.

28 **78. Maintenance Required Order**: The mobile station shall record the reason for the
29 *Maintenance Required Order* in the mobile station's semi-permanent memory
30 (MAINTRSN_{S-p} equals the least significant four bits of ORDQ_R). The mobile station
31 shall remain in the unlocked condition. The mobile station should notify the user of
32 the maintenance required condition.

33 **89. PACA Message**: If P_REV_IN_USE_S is less than or equal to four and the mobile
34 station does not support PACA capability, the mobile station shall send a *Mobile*
35 *Station Reject Order* with the ORDQ field set to '00000110' (message requires a
36 capability that is not supported by the mobile station); otherwise, the mobile station
37 shall process the message as follows:

38 If PACA_S is equal to disabled, the mobile station shall send a *Mobile Station Reject*
39 *Order* with the ORDQ field set to '00000010' (message not accepted in this state).

40 If PACA_S is equal to enabled, the mobile station shall perform the following:

- 1 • If the purpose of the message is to respond to an *Origination Message*
2 (PURPOSE_r is equal to '0000'), the mobile station shall send a *Mobile Station*
3 *Reject Order* with the ORDQ field set to '00000010' (message not accepted in this
4 state).
- 5 • If the purpose of the message is to provide the queue position of the PACA call
6 (PURPOSE_r is equal to '0001'), the mobile station shall set the PACA state timer
7 to the duration shown in Table 3.7.2.3.2.20-2 corresponding to the value of
8 PACA_TIMEOUT_S, should indicate to the user that the PACA call is still queued,
9 and should indicate to the user the current queue position (Q_POS_r) of the call.
- 10 • If the purpose of the message is to instruct the mobile station to re-originate the
11 PACA call (PURPOSE_r is equal to '0010'), Layer 3 shall send an L2-
12 Supervision.Request primitive to Layer 2 to abort any access attempt in
13 progress, shall set the PACA state timer to the duration shown in Table
14 3.7.2.3.2.20-2 corresponding to the value of PACA_TIMEOUT_S, and shall enter
15 the *Mobile Station Origination Attempt Substate* with a PACA response indication.
- 16 • If the purpose of the message is to cancel the PACA call (PURPOSE_r is equal to
17 '0011'), the mobile station shall set PACA_S to disabled and PACA_CANCEL to '0',
18 shall disable the PACA state timer, and should indicate to the user that the
19 PACA call has been canceled.

20 910. *Registration Accepted Order:*

- 21 • If ORDQ_r = '00000101', the mobile station shall set ROAM_INDI_S = ROAM_INDI_r
22 and should display the roaming condition.
- 23 • If ORDQ_r = '00000111', the mobile station shall perform the following
 - 24 - The mobile station shall set ROAM_INDI_S ~~=to~~ ROAM_INDI_r and should
25 display the roaming condition.
 - 26 - The mobile station shall set C SIG_ENCRYPT_MODE_S ~~=to~~
27 C SIG_ENCRYPT_MODE_r.
- 28 - If USE_NEW_KEY_r is not included, or is included and is set to '1', the mobile
29 station shall use the session key generated at the most recent registration for
30 encryption of signaling and user information. The mobile station shall store
31 the session key in KEY_S[KEY_SEQ_NEW_S_p]. The mobile station shall store
32 KEY_SIZE_r in KEY_SIZE_S. The mobile station shall increment the variable
33 KEY_SEQ_NEW_S_p by one (modulo 16). If ENC KEY SIZE_r is included, the
34 mobile station shall set ENC KEY SIZE_S to ENC KEY SIZE_r.
- 35 - If USE_NEW_KEY_r is included and is set to '0', then the mobile station shall
36 use KEY_S[KEY_SEQ_r] as the session key.
- 37 - If C SIG ENCRYPT MODE_r is not equal to '000', the mobile station shall set
38 ENC KEY_S to the most recently generated CMEAKEY in the mobile station,
39 associated with the AUTHR of the Registration Message, and
40 EXT ENCRYPT SEQ[0] and EXT ENCRYPT SEQ[1] to 256 × ENC SEQ H
41 (the ENC SEQ H field in the Registration Message).

- 1 • The mobile station shall then enter the *Mobile Station Idle State*.

2 **4.011.** *Registration Rejected Order:* This order indicates that normal service is not available
 3 on this system. The mobile station shall disable the full-TMSI timer. If the received
 4 order specifies to delete the TMSI (ORDQ = '00000100'), the mobile station shall set
 5 all the bits of the TMSI_CODE_{S-p} to '1'. The mobile station shall enter the *System*
 6 *Determination Substate* of the *Mobile Station Initialization State* with a registration
 7 rejected indication (see 2.6.1.1).

8 **4.012.** *Release Order:* If NDSS_ORIG_S is equal to enabled, the mobile station shall set
 9 NDSS_ORIG_S to disabled, and should indicate to the user that the call origination
 10 has been canceled. The mobile station shall enter the *Mobile Station Idle State* or the
 11 *System Determination Substate* of the *Mobile Station Initialization State* with a release
 12 indication (see 2.6.1.1). If the mobile station enters the *Mobile Station Idle State*, and
 13 if PACA_S is equal to enabled, the mobile station shall set PACA_S to disabled and
 14 PACA_CANCEL to '0', shall disable the PACA state timer, and should indicate to the
 15 user that the PACA call has been canceled.

16 **4.013.** *Retry Order:* The mobile station shall process the message as follows:

- 17 • If RETRY_TYPE_r is equal to '000', the mobile station shall set
 18 RETRY_DELAY_S[RETRY_TYPE] to 0, where RETRY_TYPE is equal to '001', '010',
 19 or '011'.
- 20 • If RETRY_TYPE_r is equal to '001', the mobile station shall perform the following:
 - 21 – If RETRY_DELAY_r is equal to '00000000', then the mobile station shall set
 22 RETRY_DELAY_S[RETRY_TYPE_r] to 0.
 - 23 – If RETRY_DELAY_r is not equal to '00000000', the mobile station shall set
 24 RETRY_DELAY_S[RETRY_TYPE_r] as follows:
 - 25 + If the most significant bit of the RETRY_DELAY_r is '0', set
 26 RETRY_DELAY_UNIT_S to 1000ms. If the most significant bit of the
 27 RETRY_DELAY_r is '1', set RETRY_DELAY_UNIT_S to 60000ms.
 - 28 + The mobile station shall set RETRY_DELAY_VALUE_S to the seven least
 29 significant bits of RETRY_DELAY_r.
 - 30 + The mobile station shall store the next system time 80 ms boundary +
 31 RETRY_DELAY_VALUE_S × RETRY_DELAY_UNIT_S ms as
 32 RETRY_DELAY_S[RETRY_TYPE_r].

33 **4.014.** *Security Mode Command Message:* The mobile station shall process the message as
 34 follows:

- 35 • The mobile station shall set C_SIG_ENCRYPT_MODE_S to
 36 C_SIG_ENCRYPT_MODE_r.

- If USE_NEW_KEY_r is not included, or is included and is set to '1', the mobile station shall use the session key generated at the most recent registration for encryption of signaling and user information. The mobile station shall store the session key in KEY_s[KEY_SEQ_NEW_{s-p}]. The mobile station shall store KEY_SIZE_r in KEY_SIZE_s. The mobile station shall then increment the variable KEY_SEQ_NEW_{s-p} by one (modulo 16). If ENC_KEY_SIZE_r is included, the mobile station shall set ENC_KEY_SIZE_s to ENC_KEY_SIZE_r.
- If USE_NEW_KEY_r is included and is set to '0', then the mobile station shall use KEY_s[KEY_SEQ_r] as the session key.

1415. Service Redirection Message: The mobile station shall process the message as follows:

- If the mobile station is directed to an unsupported operation mode or band class, the mobile station shall respond with a *Mobile Station Reject Order* with ORDQ equal to '00000110' (message requires a capability that is not supported by the mobile station).
- If DELETE_TMSI_r is equal to '1', the mobile station shall set all the bits of TMSI_CODE_{s-p} to '1'. The mobile station shall disable the full-TMSI timer.
- The mobile station shall set RETURN_IF_FAIL_s = RETURN_IF_FAIL_r.
- If RECORD_TYPE_r is equal to '00000000', the mobile station shall enter the *System Determination Substate* of the *Mobile Station Initialization State* with an NDSS off indication (see 2.6.1.1); otherwise, the mobile station shall store the redirection record received in the message as REDIRECT_REC_s and shall enter the *System Determination Substate* of the *Mobile Station Initialization State* with a redirection indication (see 2.6.1.1).

1516. SSD Update Message: If the registration access was initiated due to a user direction to power down, the mobile station shall ignore the message. Otherwise, the mobile station shall respond to the message as specified in 2.3.12.1.5.

1617. Status Request Message: The mobile station shall disable the *System Access State* timer and respond to the message. If P_REV_IN_USE_s is less than or equal to three, the mobile station shall respond with a *Status Response Message*. If P_REV_IN_USE_s is greater than three, the mobile station shall respond with an *Extended Status Response Message*. If the message does not specify any qualification information (QUAL_INFO_TYPE_r is equal to '00000000'), the mobile station shall include the requested information records in the response. If the message specifies a band class (QUAL_INFO_TYPE_r is equal to '00000001'), the mobile station shall only include the requested information records for the specified band class (BAND_CLASS_r) in the response. If the message specifies a band class and an operating mode (QUAL_INFO_TYPE_r is equal to '00000010'), the mobile station shall only include the requested information records for the specified band class (BAND_CLASS_r) and operating mode (OP_MODE_r) in the response.

If the message specifies a band class or a band class and an operating mode which are not supported by the mobile station, the mobile station shall send a *Mobile Station Reject Order* with ORDQ set to '00000110' (message requires a capability that is not supported by the mobile station). If the response to this message exceeds the allowable length, the mobile station shall send a *Mobile Station Reject Order* with ORDQ set to '00001000' (response message would exceed the allowable length). If the message specifies an information record which is not supported by the mobile station for the specified band class and operating mode, the mobile station shall send a *Mobile Station Reject Order* with ORDQ set to '00001001' (information record is not supported for the specified band class and operating mode).

4718. *TMSI Assignment Message*: The mobile station shall store the TMSI zone and code as follows:

- The mobile station shall store the length of the TMSI zone field by setting ASSIGNING_TMSI_ZONE_LEN_{s-p} to TMSI_ZONE_LEN_r;
- The mobile station shall store the assigning TMSI zone number by setting the ASSIGNING_TMSI_ZONE_LEN_{s-p} least significant octets of ASSIGNING_TMSI_ZONE_{s-p} to TMSI_ZONE_r, and
- The mobile station shall store the TMSI code by setting TMSI_CODE_{s-p} to TMSI_CODE_r.

The mobile station shall set the TMSI expiration time by setting TMSI_EXP_TIME_{s-p} to TMSI_EXP_TIME_r. The mobile station shall disable the full-TMSI timer. The mobile station shall then respond with a *TMSI Assignment Completion Message* within T_{56m} seconds.

4819. *User Zone Reject Message*

4920. *Any other message*: If the mobile station receives any other message specified in Table 3.7.2.3-1, it shall ignore all Layer 3 fields. The mobile station shall ignore all other messages.

20. Base Station Reject Order:

- ~~If ORDQ_r = '00000001', the mobile station shall send a *Security Mode Request Message* with the ENC_SIG_H field included in it. If the mobile receives two *Base Station Reject Orders* without successfully decrypting any encrypted messages from the base station between the orders, the mobile station shall set REG_ENCRYPT_RESYNC to YES and the mobile station shall go to the *System Determination Substate* with an encryption failure indication.~~

2.6.3.7 Mobile Station Message Transmission Substate

In this substate, the mobile station sends a *Data Burst Message* or a *Device Information Message*. If the base station responds with an authentication request, the mobile station responds in this substate.

Support of this substate is optional.

If a message received from the base station requires a Layer 2 acknowledgment and does not require a Layer 3 response, Layer 3 shall indicate to Layer 2 that no response is outstanding (see 2.1.1.2.2.1 of [4]).

If a message received from the base station requires a Layer 2 acknowledgment and also a Layer 3 response, Layer 3 shall indicate to Layer 2 that a response is outstanding (see 2.1.1.2.2.1 of [4]).

When transmitting a response to a message received from the base station, Layer 3 shall indicate to Layer 2 that the type of the message is a response (see 2.1.1.2.2.1 of [4]).

When transmitting an autonomous message (i.e., a message that is not sent as a response to a message received from the base station) other than the *Data Burst Message*, Layer 3 shall indicate to Layer 2 that the message is a request other than a registration request or a message transmission request (see 2.1.1.2.2.1 of [4]).

When transmitting an autonomous *Data Burst Message*, Layer 3 shall indicate to Layer 2 that the type of the message is a request that is a message transmission (see 2.1.1.2.2.1 of [4]).

Upon entering the *Mobile Station Message Transmission Substate*, the mobile station shall transmit the message as follows:

- The mobile station shall exit the *Mobile Station Message Transmission Substate*, shall enter either the *Mobile Station Idle State* or the *System Determination Substate* with an ACCT blocked indication, and should indicate to the user that the message transmission has terminated if all of the following conditions are true:

- P_REV_IN_USE_S is greater than six,
- ACCT is enabled for the service option number associated with the data burst message, due to either of the following two conditions:
 - + The service option number associated with the data burst message is equal to an ACCT SO entry in ACCT SO LIST, or
 - + The service option group number of the service option associated with the data burst message is equal to an ACCT SO GRP entry in ACCT SO GRP LIST.

- If the mobile station entered this substate with a message transmission indication, the mobile station shall transmit the *Data Burst Message* to the base station.
- If the mobile station entered this substate with a hook status indication, the mobile station shall set the autonomous message timer equal to AUTO_MSG_INTERVAL_S and shall start the timer. The mobile station shall transmit the *Device Information Message* to the base station, with the RECORD_TYPE field of the message set to 00100000 and the Hook Indicator field set to the current hook status.

While in this substate, the mobile station shall monitor the Paging Channel or the Forward Common Control Channel. If the mobile station declares a loss of the Paging Channel or the Forward Common Control Channel (see [2.6.2.1.1.4](#) [2.6.3.1.8](#)), the mobile station shall perform the following:

- If PACA_S is equal to enabled, the mobile station shall set PACA_S to disabled and PACA_CANCEL to '0', shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.
- The mobile station shall declare an access attempt failure and update its registration variables as specified in 2.6.5.5.3.2.
- The mobile station shall disable its transmitter and enter the *Mobile Station Idle State*.

If the mobile station receives confirmation of any message sent by the mobile station in this substate, it shall send a response in this substate if required and shall then enter the *Mobile Station Idle State*.

If PACA_S is equal to enabled, the mobile station shall set PACA_CANCEL to '1' when the user directs the mobile station to cancel a PACA call.

If the mobile station receives a mobile-station-addressed page, the mobile station may determine whether there is a page match (see 2.6.2.3). If a match is declared, the mobile station shall perform the following:

- Layer 3 shall send an L2-Supervision.Request primitive to Layer 2 to abort any access attempt in progress.
- The mobile station shall enter the *Page Response Substate*.
- If the mobile station entered this substate with a message transmission indication, the mobile station may store the *Data Burst Message* for later transmission.

If the mobile station is to exit the *System Access State* as a result of processing Layer 3 fields of a message requiring an acknowledgment, the mobile station shall exit the *System Access State* after Layer 3 receives an indication from Layer 2 that the acknowledgment to the message has been sent and acknowledged.

If Layer 3 receives a message with an indication from Layer 2 that an access attempt for a message being transmitted was not terminated as a result of processing the Layer 2 fields of the received message, the mobile station shall ignore the received message.

The following directed messages and orders can be received. If any field value of the message or order is outside its permissible range, the mobile station may send a *Mobile Station Reject Order* with ORDQ equal to '00000100' (message field not in valid range).

1. *Authentication Challenge Message*: The mobile station shall respond to the message as specified in 2.3.12.1.4, regardless of the value of AUTH_S .
2. *Base Station Challenge Confirmation Order*: The mobile station shall respond to the message as specified in 2.3.12.1.5.
3. *Base Station Reject Order*:

- 1 • If $\text{ORDQ}_r = '00000001'$, the mobile station shall send a *Security Mode Request*
 2 *Message* with the ENC SIG H field included in it. If the mobile receives two *Base*
 3 *Station Reject Orders* without successfully decrypting any encrypted messages
 4 from the base station between the orders, the mobile station shall set
 5 $\text{REG_ENCRYPT_RESYNC}$ to YES and the mobile station shall go to the *System*
 6 *Determination Substate* with an encryption failure indication.
- 7 34. *Data Burst Message*
- 8 45. *Local Control Order*
- 9 56. *Lock Until Power-Cycled Order*: The mobile station shall disable its transmitter and
 10 record the reason for the *Lock Until Power-Cycled Order* in the mobile station's semi-
 11 permanent memory (LCKRSN_{S-p} equals the least significant four bits of ORDQ_r).
 12 The mobile station should notify the user of the locked condition. The mobile
 13 station shall enter the *System Determination Substate* of the *Mobile Station*
 14 *Initialization State* with a lock indication (see 2.6.1.1), and shall not enter the *System*
 15 *Access State* again until after the next mobile station power-up or until it has
 16 received an *Unlock Order*. This requirement shall take precedence over any other
 17 mobile station requirement specifying entry to the *System Access State*.
- 18 67. *Maintenance Required Order*: The mobile station shall record the reason for the
 19 *Maintenance Required Order* in the mobile station's semi-permanent memory
 20 (MAINTRSN_{S-p} equals the least significant four bits of ORDQ_r). The mobile station
 21 shall remain in the unlocked condition. The mobile station should notify the user of
 22 the maintenance required condition.
- 23 78. *PACA Message*: If P_REV_IN_USE_S is less than or equal to four and the mobile
 24 station does not support PACA capability, the mobile station shall send a *Mobile*
 25 *Station Reject Order* with the ORDQ field set to '00000110' (message requires a
 26 capability that is not supported by the mobile station); otherwise, the mobile station
 27 shall process the message as follows:
 28 If PACAS_S is equal to disabled, the mobile station shall send a *Mobile Station Reject*
 29 *Order* with the ORDQ field set to '00000010' (message not accepted in this state).
 30 If PACAS_S is equal to enabled, the mobile station shall perform the following:
 31 • If the purpose of the message is to respond to an *Origination Message*
 32 (PURPOSE_r is equal to '0000'), the mobile station shall send a *Mobile Station*
 33 *Reject Order* with the ORDQ field set to '00000010' (message not accepted in this
 34 state).
 35 • If the purpose of the message is to provide the queue position of the PACA call
 36 (PURPOSE_r is equal to '0001'), the mobile station shall set the PACA state timer
 37 to the duration shown in Table 3.7.2.3.2.20-2 corresponding to the value of
 38 PACA_TIMEOUT_S , should indicate to the user that the PACA call is still queued,
 39 and should indicate to the user the current queue position (Q_{POS}_r) of the call.

- If the purpose of the message is to instruct the mobile station to re-originate the PACA call (PURPOSE_r is equal to '0010'), Layer 3 shall send an L2-Supervision.Request primitive to Layer 2 to abort any access attempt in progress, shall set the PACA state timer to the duration shown in Table 3.7.2.3.2.20-2 corresponding to the value of PACA_TIMEOUT_s, and shall enter the *Mobile Station Origination Attempt Substate* with a PACA response indication.
- If the purpose of the message is to cancel the PACA call (PURPOSE_r is equal to '0011'), the mobile station shall set PACA_S to disabled and PACA_CANCEL to '0', shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.

89. Registration Accepted Order:

- If ORDQ_r = '00000101', the mobile station shall set ROAM_INDI_S = ROAM_INDI_r and should display the roaming condition.
- If ORDQ_r = '00000111', the mobile station shall perform the following
 - The mobile station shall set ROAM_INDI_S ~~=to~~ ROAM_INDI_r and should display the roaming condition.
 - The mobile station shall set C_SIG_ENCRYPT_MODE_S ~~=to~~ C_SIG_ENCRYPT_MODE_r.
 - ~~If USE_NEW_KEY_r is not included, or is included and is set to '1', the mobile station shall use the session key generated at the most recent registration for encryption of signaling and user information. The mobile station shall store the session key in KEY_S[KEY_SEQ_NEW_{S-p}]. The mobile station shall store KEY_SIZE_r in KEY_SIZE_S. The mobile station shall increment the variable KEY_SEQ_NEW_{S-p} by one (modulo 16). If ENC_KEY_SIZE_r is included, the mobile station shall set ENC_KEY_SIZE_S to ENC_KEY_SIZE_r.~~
 - ~~If USE_NEW_KEY_r is included and is set to '0', then the mobile station shall use KEY_S[KEY_SEQ_r] as the session key.~~
 - ~~If C SIG ENCRYPT MODE_r is not equal to '000', the mobile station shall set ENC_KEY_S to the most recently generated CMEAKEY in the mobile station associated with the AUTHR of the *Registration Message*, and EXT ENCRYPT SEQ[0] and EXT ENCRYPT SEQ[1] to 256 × ENC SEQ H (the ENC SEQ H field in the *Registration Message*).~~

90. Registration Rejected Order: This order indicates that normal service is not available on this system. The mobile station shall disable the full-TMSI timer. If the received order specifies to delete the TMSI (ORDQ = '00000100'), the mobile station shall set all the bits of the TMSI_CODE_{S-p} to '1'. The mobile station shall enter the *System Determination Substate* of the *Mobile Station Initialization State* with a registration rejected indication (see 2.6.1.1).

911. Retry Order: The mobile station shall process the message as follows:

- 1 • If RETRY_TYPE_r is equal to '000', the mobile station shall set
2 RETRY_DELAY_S[RETRY_TYPE] to 0, where RETRY_TYPE is equal to '001', '010',
3 or '011'.
4 • If RETRY_TYPE_r is equal to '001', the mobile station shall perform the following:
5 – If RETRY_DELAY_r is equal to '00000000', then the mobile station shall set
6 RETRY_DELAY_S[RETRY_TYPE_r] to 0.
7 – If RETRY_DELAY_r is not equal to '00000000', the mobile station shall set
8 RETRY_DELAY_S[RETRY_TYPE_r] as follows:
9 + If the most significant bit of the RETRY_DELAY_r is '0', set
10 RETRY_DELAY_UNIT_S to 1000ms. If the most significant bit of the
11 RETRY_DELAY_r is '1', set RETRY_DELAY_UNIT_S to 60000ms.
12 + The mobile station shall set RETRY_DELAY_VALUE_S to the seven least
13 significant bits of RETRY_DELAY_r.
14 + The mobile station shall store the next system time 80 ms boundary +
15 RETRY_DELAY_VALUE_S × RETRY_DELAY_UNIT_S ms as
16 RETRY_DELAY_S[RETRY_TYPE_r].

17 **1112.** *Security Mode Command Message:* The mobile station shall process the message as
18 follows:

- 19 • The mobile station shall set C_SIG_ENCRYPT_MODE_S to
20 C_SIG_ENCRYPT_MODE_r.
- 21 • If USE_NEW_KEY_r is not included, or is included and is set to '1', the mobile
22 station shall use the session key generated at the most recent registration for
23 encryption of signaling and user information. The mobile station shall store the
24 session key in KEY_S[KEY_SEQ_NEW_{S-p}]. The mobile station shall store
25 KEY_SIZE_r in KEY_SIZE_S. The mobile station shall then increment the variable
26 KEY_SEQ_NEW_{S-p} by one (modulo 16). If ENC_KEY_SIZE_r is included, the
27 mobile station shall set ENC_KEY_SIZE_S to ENC_KEY_SIZE_r.
- 28 • If USE_NEW_KEY_r is included and is set to '0', then the mobile station shall use
29 KEY_S[KEY_SEQ_r] as the session key.

30 **1213.** *Service Redirection Message:* The mobile station shall process the message as
31 follows:

- 32 • If the mobile station is directed to an unsupported operation mode or band class,
33 the mobile station shall respond with a *Mobile Station Reject Order* with ORDQ
34 equal to '00000110' (message requires a capability that is not supported by the
35 mobile station).
- 36 • If DELETE_TMSI_r is equal to '1', the mobile station shall set all the bits of
37 TMSI_CODE_{S-p} to '1'. The mobile station shall disable the full-TMSI timer.
- 38 • The mobile station shall set RETURN_IF_FAIL_S = RETURN_IF_FAIL_r.

- 1 • If RECORD_TYPE_r is equal to '00000000', the mobile station shall enter the
 2 *System Determination Substate* of the *Mobile Station Initialization State* with an
 3 NDSS off indication (see 2.6.1.1); otherwise, the mobile station shall store the
 4 redirection record received in the message as REDIRECT_REC_s and shall enter
 5 the *System Determination Substate* of the *Mobile Station Initialization State* with a
 6 redirection indication (see 2.6.1.1).

7 **4314.** *SSD Update Message:* The mobile station shall respond to the message as specified
 8 in 2.3.12.1.5.

9 **4415.** *Status Request Message:* The mobile station shall disable the *System Access State*
 10 timer and respond to the message. If P_REV_IN_USE_s is less than or equal to three,
 11 the mobile station shall respond with a *Status Response Message*. If
 12 P_REV_IN_USE_s is greater than three, the mobile station shall respond with an
 13 *Extended Status Response Message*. If the message does not specify any
 14 qualification information (QUAL_INFO_TYPE_r is equal to '00000000'), the mobile
 15 station shall include the requested information records in the response. If the
 16 message specifies a band class (QUAL_INFO_TYPE_r is equal to '00000001'), the
 17 mobile station shall only include the requested information records for the specified
 18 band class (BAND_CLASS_r) in the response. If the message specifies a band class
 19 and an operating mode (QUAL_INFO_TYPE_r is equal to '00000010'), the mobile
 20 station shall only include the requested information records for the specified band
 21 class (BAND_CLASS_r) and operating mode (OP_MODE_r) in the response.

22 If the message specifies a band class or a band class and an operating mode which
 23 is not supported by the mobile station, the mobile station shall send a *Mobile Station*
 24 *Reject Order* with ORDQ set to '00000110' (message requires a capability that is not
 25 supported by the mobile station). If the response to this message exceeds the
 26 allowable length, the mobile station shall send a *Mobile Station Reject Order* with
 27 ORDQ set to '00001000' (response message would exceed the allowable length). If
 28 the message specifies an information record which is not supported by the mobile
 29 station for the specified band class and operating mode, the mobile station shall
 30 send a *Mobile Station Reject Order* with ORDQ set to '00001001' (information record
 31 is not supported for the specified band class and operating mode).

32 **4516.** *TMSI Assignment Message:* The mobile station shall store the TMSI zone and code
 33 as follows:

- 34 • The mobile station shall store the length of the TMSI zone field by setting
 35 ASSIGNING_TMSI_ZONE_LEN_{s-p} to TMSI_ZONE_LEN_r,
 36 • The mobile station shall store the assigning TMSI zone number by setting the
 37 ASSIGNING_TMSI_ZONE_LEN_{s-p} least significant octets of
 38 ASSIGNING_TMSI_ZONE_{s-p} to TMSI_ZONE_r, and
 39 • The mobile station shall store the TMSI code by setting TMSI_CODE_{s-p} to
 40 TMSI_CODE_r.

41 The mobile station shall set the TMSI expiration time by setting
 42 TMSI_EXP_TIME_{s-p} to TMSI_EXP_TIME_r. The mobile station shall disable the

1 full-TMSI timer. The mobile station shall then respond with a *TMSI Assignment*
 2 *Completion Message* within T_{56m} seconds.

3 **1617. Any other message:** If the mobile station receives any other message specified in
 4 Table 3.7.2.3-1, it shall ignore all Layer 3 fields. The mobile station shall ignore all
 5 other messages.

6 **17. Base Station Reject Order:**

- 7 • ~~If ORDO_{VF} = '00000001', the mobile station shall send a *Security Mode Request*~~
 8 ~~Message with the ENC_SIG_H field included in it. If the mobile receives two *Base*~~
 9 ~~*Station Reject Orders* without successfully decrypting any encrypted messages~~
 10 ~~from the base station between the orders, the mobile station shall set~~
 11 ~~REG_ENCRYPT_RESYNC to YES and the mobile station shall go to the *System*~~
 12 ~~*Determination Substate* with an encryption failure indication.~~

13 2.6.3.8 PACA Cancel Substate

14 In this substate, the mobile station sends a *PACA Cancel Message*. If the base station
 15 responds with an authentication request, the mobile station responds in this substate.

16 Upon entering the *PACA Cancel Substate*, the mobile station shall transmit the *PACA Cancel*
 17 *Message*.

18 If a message received from the base station requires a Layer 2 acknowledgment and does
 19 not require a Layer 3 response, Layer 3 shall indicate to Layer 2 that no response is
 20 outstanding (see 2.1.1.2.2.1 of [4]).

21 If a message received from the base station requires a Layer 2 acknowledgment and also a
 22 Layer 3 response, Layer 3 shall indicate to Layer 2 that a response is outstanding (see
 23 2.1.1.2.2.1 of [4]).

24 When transmitting a response to a message received from the base station, Layer 3 shall
 25 indicate to Layer 2 that the type of the message is a response (see 2.1.1.2.2.1 of [4]).

26 When transmitting an autonomous message (i.e., a message that is not sent as a response
 27 to a message received from the base station), Layer 3 shall indicate to Layer 2 that the type
 28 of the message is a request other than a registration request or a message transmission
 29 request (see 2.1.1.2.2.1 of [4]).

30 While in this substate, the mobile station shall monitor the Paging Channel or the Forward
 31 Common Control Channel. If the mobile station declares a loss of the Paging Channel or
 32 the Forward Common Control Channel (see [2.6.2.1.1.4 2.6.3.1.8](#)), it shall declare an access
 33 attempt failure and update its registration variables as specified in 2.6.5.5.3.2, disable its
 34 transmitter and enter the *Mobile Station Idle State*. If the mobile station receives
 35 confirmation of any message sent by the mobile station in this substate, it shall send a
 36 response in this substate if required and shall then enter the *Mobile Station Idle State*.

37 If the mobile station receives a mobile-station-addressed page, the mobile station may
 38 determine if there is a page match (see 2.6.2.3). If a match is declared, Layer 3 shall send
 39 an L2-Supervision.Request primitive to Layer 2 to abort any access attempt in progress and
 40 shall enter the *Page Response Substate*.

1 If the mobile station is to exit the *System Access State* as a result of processing Layer 3
 2 fields of a message requiring an acknowledgment, the mobile station shall exit the *System*
 3 *Access State* after Layer 3 receives an indication from Layer 2 that the acknowledgment to
 4 the message has been sent and acknowledged.

5 If Layer 3 receives a message with an indication from Layer 2 that an access attempt for a
 6 message being transmitted was not terminated as a result of processing the Layer 2 fields of
 7 the received message, the mobile station shall ignore the received message.

8 The following directed messages and orders can be received. If any field value of the
 9 message or order is outside its permissible range, the mobile station may send a *Mobile*
 10 *Station Reject Order* with ORDQ equal to '00000100' (message field not in valid range).

11 1. *Authentication Challenge Message*: The mobile station shall respond to the message
 12 as specified in 2.3.12.1.4, regardless of the value of AUTH_S.

13 2. *Base Station Challenge Confirmation Order*: The mobile station shall respond to the
 14 message as specified in 2.3.12.1.5.

15 3. *Base Station Reject Order*:

- 16 • If ORDQ_r = '00000001', the mobile station shall send a *Security Mode Request*
 17 *Message* with the ENC SIG H field included in it. If the mobile receives two *Base*
 18 *Station Reject Orders* without successfully decrypting any encrypted messages
 19 from the base station between the orders, the mobile station shall set
 20 REG ENCRYPT RESYNC to YES and the mobile station shall go to the *System*
 21 *Determination Substate* with an encryption failure indication.

22 34. *Data Burst Message*

23 45. *Local Control Order*

24 56. *Lock Until Power-Cycled Order*: The mobile station shall disable its transmitter and
 25 record the reason for the *Lock Until Power-Cycled Order* in the mobile station's semi-
 26 permanent memory (LCKRSN_Ps-p equals the least significant four bits of ORDQ_r).

27 The mobile station should notify the user of the locked condition. The mobile
 28 station shall enter the *System Determination Substate* of the *Mobile Station*
 29 *Initialization State* with a lock indication (see 2.6.1.1), and shall not enter the *System*
 30 *Access State* again until after the next mobile station power-up or until it has
 31 received an *Unlock Order*. This requirement shall take precedence over any other
 32 mobile station requirement specifying entry to the *System Access State*.

33 67. *Maintenance Required Order*: The mobile station shall record the reason for the
 34 *Maintenance Required Order* in the mobile station's semi-permanent memory
 35 (MAINTRSN_{S-p} equals the least significant four bits of ORDQ_r). The mobile station
 36 shall remain in the unlocked condition. The mobile station should notify the user of
 37 the maintenance required condition.

38 78. *PACA Message*: The mobile station shall send a *Mobile Station Reject Order* with the
 39 ORDQ field set to '00000010' (message not accepted in this state).

40 89. *Registration Accepted Order*:

- 1 • If $\text{ORDQ}_r = '00000101'$, the mobile station shall set $\text{ROAM_INDI}_s \rightarrow \text{to} \text{ROAM_INDI}_r$ and should display the roaming condition.
- 2
- 3 • If $\text{ORDQ}_r = '00000111'$, the mobile station shall perform the following
- 4 - The mobile station shall set $\text{ROAM_INDI}_s \rightarrow \text{to} \text{ROAM_INDI}_r$ and should
- 5 display the roaming condition.
- 6 - The mobile station shall set $\text{C_SIG_ENCRYPT_MODE}_s \rightarrow \text{to} \text{C_SIG_ENCRYPT_MODE}_r$.
- 7
- 8 - ~~If USE_NEW_KEY_r is not included, or is included and is set to '1', the mobile~~
- 9 ~~station shall use the session key generated at the most recent registration for~~
- 10 ~~encryption of signaling and user information. The mobile station shall store~~
- 11 ~~the session key in $\text{KEY}_s[\text{KEY_SEQ_NEW}_{s,p}]$. The mobile station shall store~~
- 12 ~~KEY_SIZE_r in KEY_SIZE_s . The mobile station shall increment the variable~~
- 13 ~~$\text{KEY_SEQ_NEW}_{s,p}$ by one (modulo 16). If ENC KEY SIZE_r is included, the~~
- 14 ~~mobile station shall set ENC KEY SIZE_s to ENC KEY SIZE_r .~~
- 15 - ~~If USE_NEW_KEY_r is included and is set to '0', then the mobile station shall~~
- 16 ~~use $\text{KEY}_s[\text{KEY_SEQ}_r]$ as the session key.~~
- 17 - ~~If $\text{C SIG ENCRYPT MODE}_r$ is not equal to '000', the mobile station shall set~~
- 18 ~~ENC KEY_s to the most recently generated CMEAKEY in the mobile station~~
- 19 ~~associated with the AUTHR of the *Registration Message*, and~~
- 20 ~~$\text{EXT ENCRYPT SEQ}[0]$ and $\text{EXT ENCRYPT SEQ}[1]$ to $256 \times \text{ENC SEQ H}$~~
- 21 ~~(the ENC SEQ H field in the *Registration Message*).~~

22 910. *Registration Rejected Order*: This order indicates that normal service is not available
 23 on this system. The mobile station shall disable the full-TMSI timer. If the received
 24 order specifies to delete the TMSI ($\text{ORDQ} = '00000100'$), the mobile station shall set
 25 all the bits of the $\text{TMSI_CODE}_{s,p}$ to '1'. The mobile station shall enter the *System*
 26 *Determination Substate* of the *Mobile Station Initialization State* with a registration
 27 rejected indication (see 2.6.1.1).

28 1011. *Retry Order*: The mobile station shall process the message as follows:

- 29 • If RETRY_TYPE_r is equal to '000', the mobile station shall set
- 30 $\text{RETRY_DELAY}_s[\text{RETRY_TYPE}]$ to 0, where RETRY_TYPE is equal to '001', '010',
 31 or '011'.
- 32 • If RETRY_TYPE_r is equal to '001', the mobile station shall perform the following:
- 33 - If RETRY_DELAY_r is equal to '00000000', then the mobile station shall set
- 34 $\text{RETRY_DELAY}_s[\text{RETRY_TYPE}_r]$ to 0.
- 35 - If RETRY_DELAY_r is not equal to '00000000', the mobile station shall set
- 36 $\text{RETRY_DELAY}_s[\text{RETRY_TYPE}_r]$ as follows:
- 37 + If the most significant bit of the RETRY_DELAY_r is '0', set
- 38 $\text{RETRY_DELAY_UNIT}_s$ to 1000ms. If the most significant bit of the
- 39 RETRY_DELAY_r is '1', set $\text{RETRY_DELAY_UNIT}_s$ to 60000ms.

- + The mobile station shall set RETRY_DELAY_VALUE_s to the seven least significant bits of RETRY_DELAY_r.
- + The mobile station shall store the next system time 80 ms boundary + RETRY_DELAY_VALUE_s × RETRY_DELAY_UNIT_s ms as RETRY_DELAY_s[RETRY_TYPE_r].

4.12. Security Mode Command Message: The mobile station shall process the message as follows:

- The mobile station shall set C_SIG_ENCRYPT_MODE_s to C_SIG_ENCRYPT_MODE_r.
- If USE_NEW_KEY_r is not included, or is included and is set to '1', the mobile station shall use the session key generated at the most recent registration for encryption of signaling and user information. The mobile station shall store the session key in KEY_s[KEY_SEQ_NEW_{s-p}]. The mobile station shall store KEY_SIZE_r in KEY_SIZE_s. The mobile station shall then increment the variable KEY_SEQ_NEW_{s-p} by one (modulo 16). If ENC_KEY_SIZE_r is included, the mobile station shall set ENC_KEY_SIZE_s to ENC_KEY_SIZE_r.
- If USE_NEW_KEY_r is included and is set to '0', then the mobile station shall use KEY_s[KEY_SEQ_r] as the session key.

4.213. Service Redirection Message: The mobile station shall process the message as follows:

- If the mobile station is directed to an unsupported operation mode or band class, the mobile station shall respond with a *Mobile Station Reject Order* with ORDQ equal to '00000110' (message requires a capability that is not supported by the mobile station).
- If DELETE_TMSI_r is equal to '1', the mobile station shall set all the bits of TMSI_CODE_{s-p} to '1'. The mobile station shall disable the full-TMSI timer.
- The mobile station shall set RETURN_IF_FAIL_s = RETURN_IF_FAIL_r.
- If RECORD_TYPE_r is equal to '00000000', the mobile station shall enter the *System Determination Substate* of the *Mobile Station Initialization State* with an NDSS off indication (see 2.6.1.1); otherwise, the mobile station shall store the redirection record received in the message as REDIRECT_REC_s and shall enter the *System Determination Substate* of the *Mobile Station Initialization State* with a redirection indication (see 2.6.1.1).

4.314. SSD Update Message: The mobile station shall respond to the message as specified in 2.3.12.1.5.

4.415. Status Request Message: The mobile station shall disable the *System Access State* timer and respond to the message. If P_REV_IN_USE_s is less than or equal to three, the mobile station shall respond with a *Status Response Message*. If P_REV_IN_USE_s is greater than three, the mobile station shall respond with an *Extended Status Response Message*. If the message does not specify any qualification information (QUAL_INFO_TYPE_r is equal to '00000000'), the mobile

1 station shall include the requested information records in the response. If the
 2 message specifies a band class (QUAL_INFO_TYPE_r is equal to '00000001'), the
 3 mobile station shall only include the requested information records for the specified
 4 band class (BAND_CLASS_r) in the response. If the message specifies a band class
 5 and an operating mode (QUAL_INFO_TYPE_r is equal to '00000010'), the mobile
 6 station shall only include the requested information records for the specified band
 7 class (BAND_CLASS_r) and operating mode (OP_MODE_r) in the *Status Response*
 8 *Message*.

9 If the message specifies a band class or a band class and an operating mode which
 10 is not supported by the mobile station, the mobile station shall send a *Mobile Station*
 11 *Reject Order* with ORDQ set to '00000110' (message requires a capability that is not
 12 supported by the mobile station). If the response to this message exceeds the
 13 allowable length, the mobile station shall send a *Mobile Station Reject Order* with
 14 ORDQ set to '00001000' (response message would exceed the allowable length). If
 15 the message specifies an information record which is not supported by the mobile
 16 station for the specified band class and operating mode, the mobile station shall
 17 send a *Mobile Station Reject Order* with ORDQ set to '00001001' (information record
 18 is not supported for the specified band class and operating mode).

19 **1516. TMSI Assignment Message:** The mobile station shall store the TMSI zone and code
 20 as follows:

- 21 • The mobile station shall store the length of the TMSI zone field by setting
 22 ASSIGNING_TMSI_ZONE_LEN_{s-p} to TMSI_ZONE_LEN_r,
- 23 • The mobile station shall store the assigning TMSI zone number by setting the
 24 ASSIGNING_TMSI_ZONE_LEN_{s-p} least significant octets of
 25 ASSIGNING_TMSI_ZONE_{s-p} to TMSI_ZONE_r, and
- 26 • The mobile station shall store the TMSI code by setting TMSI_CODE_{s-p} to
 27 TMSI_CODE_r.

28 The mobile station shall set the TMSI expiration time by setting TMSI_EXP_TIME_{s-p}
 29 to TMSI_EXP_TIME_r. The mobile station shall disable the full-TMSI timer. The
 30 mobile station shall then respond with a *TMSI Assignment Completion Message*
 31 within T_{56m} seconds.

32 **1617. Any other message:** If the mobile station receives any other message specified in
 33 Table 3.7.2.3-1, it shall ignore all Layer 3 fields. The mobile station shall ignore all
 34 other messages.

35 **17. Base Station Reject Order:**

- 36 • ~~If ORDQ_r = '00000001', the mobile station shall send a Security Mode Request
 37 Message with the ENC_SIC_H field included in it. If the mobile receives two Base
 38 Station Reject Orders without successfully decrypting any encrypted messages
 39 from the base station between the orders, the mobile station shall set
 40 REG_ENCRYPT_RESYNC to YES and the mobile station shall go to the System
 41 Determination Substate with an encryption failure indication.~~

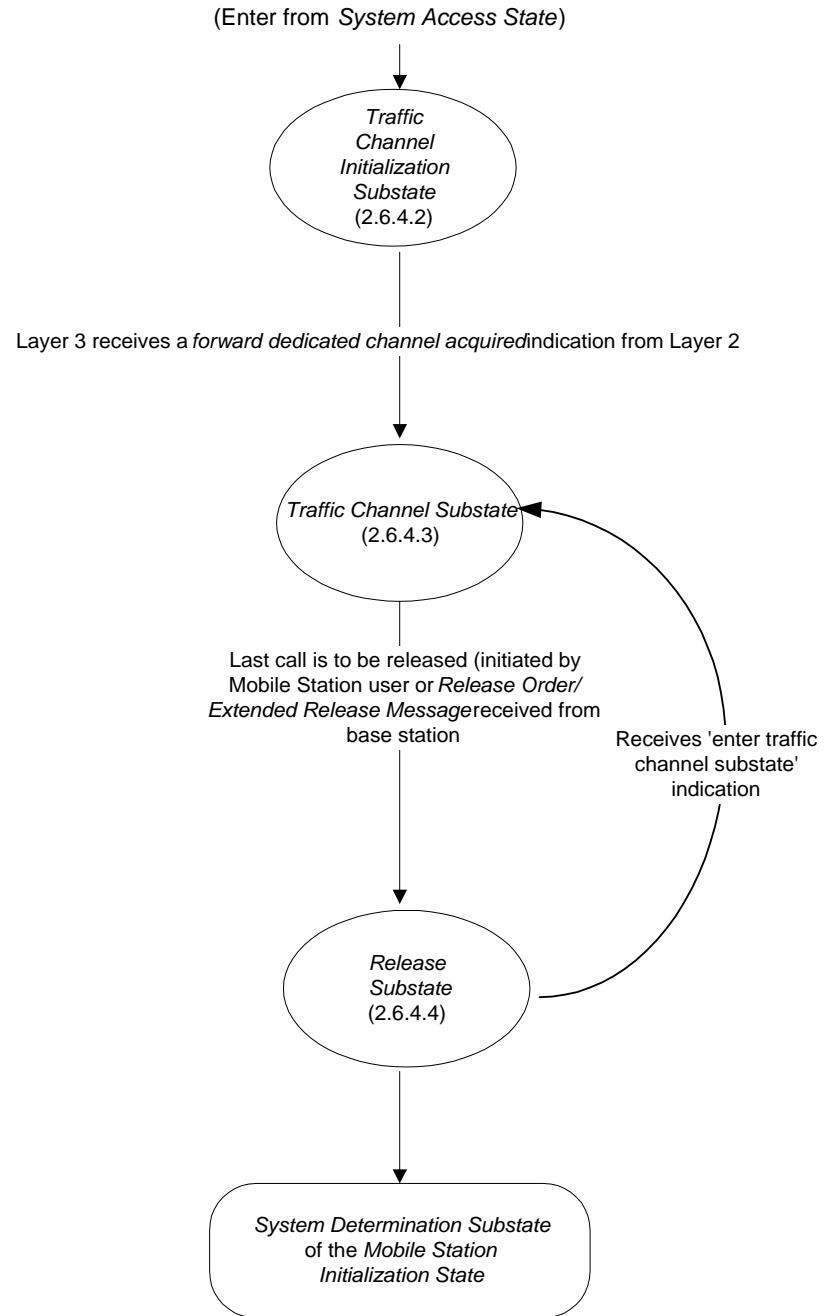
1 2.6.4 Mobile Station Control on the Traffic Channel State

2 In this state, the mobile station communicates with the base station using the Forward and
3 Reverse Traffic Channels.

4 As illustrated in Figure 2.6.4-1, the *Mobile Station Control on the Traffic Channel State*
5 consists of the following substates:

- 6 • *Traffic Channel Initialization Substate* - In this substate, the mobile station verifies
7 that it can receive the Forward Traffic Channel and begins transmitting on the
8 Reverse Traffic Channel.
- 9 • *Traffic Channel Substate* - In this substate, the mobile station exchanges Traffic
10 Channel frames with the base station in accordance with the current service
11 configuration. The mobile station may perform the gating operation of Reverse Pilot
12 Channel. While in this substate, one or more Call Control instances can be
13 activated (see 2.6.10).
- 14 • *Release Substate* - In this substate, the mobile station disconnects the calls and the
15 physical channels.

16

**Figure 2.6.4-1. Mobile Station Control on the Traffic Channel State**

1 2.6.4.1 Special Functions and Actions

2 The mobile station performs special functions and actions in one or more of the substates of
 3 the *Mobile Station Control on the Traffic Channel State*.

4 2.6.4.1.1 Forward Traffic Channel Power Control

5 The mobile station uses FPC_MODE_NO_SCH_S as FPC_MODE_S except during the forward
 6 Supplemental Channel assignment interval. During the forward Supplemental Channel
 7 assignment interval, the mobile station uses FPC_MODE_SCH_S as FPC_MODE_S.

8 To support Forward Traffic Channel power control, the mobile station reports frame error
 9 rate statistics to the base station. If the base station enables periodic reporting, the mobile
 10 station reports frame error rate statistics at specified intervals. If the base station enables
 11 threshold reporting, the mobile station reports frame error rate statistics when the frame
 12 error rate reaches a specified threshold.⁹

13 The mobile station shall maintain the following frame counters:

- 14 • A counter (TOT_FRAMES_S) for the total number of frames received on the Forward
 15 Fundamental Channel.
- 16 • A counter (BAD_FRAMES_S) for the number of bad frames detected on the Forward
 17 Fundamental Channel.
- 18 • A counter (DCCH_TOT_FRAMES_S) for the total number of frames received on the
 19 Forward Dedicated Control Channel, when the Dedicated Control Channel is
 20 assigned.
- 21 • A counter (DCCH_BAD_FRAMES_S) for the total number of bad frames received on
 22 the Forward Dedicated Control Channel, when the Dedicated Control Channel is
 23 assigned.

24 The mobile station shall maintain the following counters for each Supplemental Channel
 25 assigned, if FOR_SCH_FER_REP_S is equal to '1':

- 26 • A counter (SCH_TOT_FRAMES_S) for the number of frames received on the assigned
 27 Supplemental Channel.
- 28 • A counter (SCH_BAD_FRAMES_S) for the number of bad frames received on the
 29 assigned Supplemental Channel.

30 The mobile station shall increment the counter by 1 at every 20 ms interval if a 20ms frame
 31 or at least one 5ms frame is received from the Forward Fundamental Channel or Dedicated
 32 Control Channel:

⁹ Periodic reporting and threshold reporting may be independently enabled or disabled by the base station.

- If the received frame is from the Fundamental Channel, the mobile station shall perform the following:
 - Increment TOT_FRAMESS by 1.
 - If the received 20ms frame is bad or one of the 5ms frames is bad, the mobile station shall increment BAD_FRAMESS by 1.
 - If the received frame is from the Forward Dedicated Control Channel, the mobile station shall perform the following:
 - Increment DCCH_TOT_FRAMESS by 1.
 - If the received 20ms frame is bad or one of the 5ms frames is bad, the mobile station shall increment DCCH_BAD_FRAMESS by 1.
 - If either
 - PWR_THRESH_ENABLES is equal to '1' and if one of the following conditions is true:
 - + The Fundamental Channel carries the Power Control Subchannel [FPC_PRI_CHANs = '0'], and BAD_FRAMESS is equal to PWR_REP_THRESHs or
 - + The Dedicated Control Channel carries the Power Control Subchannel [FPC_PRI_CHANs = '1'], and DCCH_BAD_FRAMESS is equal to PWR_REP_THRESHs.
 - or
 - PWR_PERIOD_ENABLES is equal to '1' and if one of the following conditions is true:
 - + The Fundamental Channel carries the Power Control Subchannel [FPC_PRI_CHANs = '0'], and TOT_FRAMESS is equal to $\lfloor(2(PWR_REP_FRAMESS/2) \times 5)\rfloor$, or
 - + The Dedicated Control Channel carries the Power Control Subchannel [FPC_PRI_CHANs = '1'], and DCCH_TOT_FRAMESS is equal to $\lfloor(2(PWR_REP_FRAMESS/2) \times 5)\rfloor$,
- then the mobile station shall send a *Power Measurement Report Message* to the base station. The mobile station should send the *Power Measurement Report Message* in unassured mode. After sending a *Power Measurement Report Message*, the mobile station shall set TOT_FRAMESS, BAD_FRAMESS to zero, and if the Dedicated Control Channel is assigned, shall set DCCH_TOT_FRAMESS and DCCH_BAD_FRAMESS to zero. The mobile station shall not increment the counters for a period of $PWR_REP_DELAYs \times 4$ frames following the first transmission of the message.
- If FPC_PRI_CHANs is equal to '0' and TOT_FRAMESS is equal to $\lfloor(2(PWR_REP_FRAMESS/2) \times 5)\rfloor$, the mobile station shall perform the following:
 - Set TOT_FRAMESS and BAD_FRAMESS to zero.

- 1 – Set DCCH_TOT_FRAMESS and DCCH_BAD_FRAMESS to zero, if the Dedicated
2 Control Channel is assigned.
- 3 • If FPC_PRI_CHAN_S is equal to '1' and DCCH_TOT_FRAMESS is equal to
4 $\lfloor(2(\text{PWR_REP_FRAMESS}/2) \times 5)\rfloor$, the mobile station shall set
5 TOT_FRAMESS, BAD_FRAMESS, DCCH_TOT_FRAMESS, and DCCH_BAD_FRAMESS
6 to zero.
- 7 For each received frame from an assigned Supplemental Channel, the mobile station shall
8 perform the following, if FOR_SCH_FER_REPS is equal to '1':
- 9 • Increment SCH_TOT_FRAMESS by 1.
10 • If the received frame is bad, increment SCH_BAD_FRAMESS by 1.

11 At the end of a burst on each assigned Supplemental Channel, if FOR_SCH_FER_REPS is
12 equal to '1', the mobile station shall report the total number of frames received on this
13 Supplemental Channel (SCH_TOT_FRAMESS) and the bad frames detected
14 (SCH_BAD_FRAMESS) with the fields SCH_PWR_MEAS_FRAMESS and
15 SCH_ERRORS_DETECTED in the *Power Measurement Report Message* respectively. After
16 sending the *Power Measurement Report Message* for the Supplemental Channel, the mobile
17 station shall set SCH_TOTAL_FRAMESS and SCH_BAD_FRAMESS of the reported SCH to
18 zero.

19 If both Forward Fundamental Channel and the Forward Dedicated Control Channel are
20 assigned to the mobile station, the mobile station shall perform the following:

- 21 • The mobile station shall set FPC_DELTA_SETPT_S to (FPC_FCH_CURR_SETPT_S –
22 FPC_DCCH_CURR_SETPT_S).
23 • For each received frame, if |FPC_FCH_CURR_SETPT_S – FPC_DCCH_CURR_SETPT_S
24 – FPC_DELTA_SETPT_S| is equal to or greater than its assigned threshold
25 FPC_SETPT_THRESH_S, the mobile station shall send the *Outer Loop Report Message*
26 requiring acknowledgment to the base station, and the mobile station shall then set
27 FPC_DELTA_SETPT_S to (FPC_FCH_CURR_SETPT_S – FPC_DCCH_CURR_SETPT_S).

28 For each of the supplemental channels assigned to the mobile station and FPC_MODE_S is
29 set to '000', the mobile station shall perform the following:

- 30 • The mobile station shall set FPC_DELTA_SCH_SETPT_S to
31 (FPC_FCH_CURR_SETPT_S – FPC_SCH_CURR_SETPT_S) if FPC_PRI_CHAN_S is equal to
32 '0'.
33 • The mobile station shall set FPC_DELTA_SCH_SETPT_S to
34 (FPC_DCCH_CURR_SETPT_S – FPC_SCH_CURR_SETPT_S) if FPC_PRI_CHAN_S is equal
35 to '1'.

- 1 • For each received frame, if $FPC_PRI_CHAN_S$ is equal to '0' and
 2 $|FPC_FCH_CURR_SETPT_S - FPC_SCH_CURR_SETPT_S -$
 3 $FPC_DELTA_SCH_SETPT_S|$ is equal to or greater than its assigned threshold
 4 $FPC_SETPT_THRESH_SCH_S$, the mobile station shall send the *Outer Loop Report*
 5 *Message* in assured mode, and the mobile station shall then set
 6 $FPC_DELTA_SCH_SETPT_S$ to $(FPC_FCH_CURR_SETPT_S - FPC_SCH_CURR_SETPT_S)$.
- 7 • For each received frame, if $FPC_PRI_CHAN_S$ is equal to '1' and
 8 $|FPC_DCCH_CURR_SETPT_S - FPC_SCH_CURR_SETPT_S -$
 9 $FPC_DELTA_SCH_SETPT_S|$ is equal to or greater than its assigned threshold
 10 $FPC_SETPT_THRESH_SCH_S$, the mobile station shall send the *Outer Loop Report*
 11 *Message* in assured mode, and the mobile station shall then set
 12 $FPC_DELTA_SCH_SETPT_S$ to $(FPC_DCCH_CURR_SETPT_S -$
 13 $FPC_SCH_CURR_SETPT_S)$.

14 If the Supplemental channels are assigned to the mobile station and FPC_MODE_S is set to
 15 '001', '010', '101', or '110', for each additional Forward Supplemental Channel other than
 16 the Forward Supplemental Channel specified by $FPC_SEC_CHAN_S$, the mobile station shall
 17 perform the following:

- 18 • The mobile station shall set $FPC_DELTA_SCH_SETPT_S$ to
 19 $(FPC_SCH_CURR_SETPT_S[FPC_SEC_CHAN_S] - FPC_SCH_CURR_SETPT_S)$ for the
 20 Supplemental Channel.
- 21 • For each received frame, if $|FPC_SCH_CURR_SETPT_S[FPC_SEC_CHAN_S] -$
 22 $FPC_SCH_CURR_SETPT_S - FPC_DELTA_SCH_SETPT_S|$ is equal to or greater than
 23 its assigned threshold $FPC_SETPT_THRESH_SCH_S$, the mobile station shall send the
 24 *Outer Loop Report Message* in assured mode, and the mobile station shall then set
 25 $FPC_DELTA_SCH_SETPT_S$ to $(FPC_SCH_CURR_SETPT_S[FPC_SEC_CHAN_S] -$
 26 $FPC_SCH_CURR_SETPT_S)$.

27 2.6.4.1.1.1 Forward Traffic Channel Power Control Initialization

28 To initialize Forward Traffic Channel power control, the mobile station shall set
 29 TOT_FRAMES_S , BAD_FRAMES_S , $DCCH_TOT_FRAMES_S$, and $DCCH_BAD_FRAMES_S$ to zero.
 30 The mobile station shall initialize the frame counters $SCH_TOT_FRAMES_S$ and
 31 $SCH_BAD_FRAMES_S$ for each assigned Supplemental Channel to zero. The mobile station
 32 shall initialize $FOR_SCH_FER_REP_S$ to zero.

33 2.6.4.1.1.2 Processing the Power Control Parameters Message

34 The mobile station shall store the following parameters from the *Power Control Parameters*
 35 *Message*:

- 36 • Power control reporting threshold ($PWR_REP_THRESH_S = PWR_REP_THRESH_r$)
- 37 • Power control reporting frame count ($PWR_REP_FRAMES_S = PWR_REP_FRAMES_r$)
- 38 • Threshold report mode indicator
 39 $(PWR_THRESH_ENABLE_S = PWR_THRESH_ENABLE_r)$

- 1 • Periodic report mode indicator
(PWR_PERIOD_ENABLE_S = PWR_PERIOD_ENABLE_r)
- 2 • Power report delay (PWR REP DELAY_S = PWR REP DELAY_r)

3 The mobile station shall set TOT_FRAMESS and BAD_FRAMESS to zero if FCH is assigned.
 4 The mobile station shall set DCCH TOT FRAMESS and DCCH BAD FRAMESS to zero if
 5 DCCH is assigned.

6

7 2.6.4.1.1.3 Processing the Power Control Message

8 The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to
 9 '00000110' (message requires a capability that is not supported by the mobile station) if any
 10 of the following conditions are detected:

- 11 • If the mobile station does not support any Radio Configuration greater than 2 and
 12 FPC_MODE_r is not supported by the mobile station.
- 13 • If the mobile station does not support Supplemental Channel and FPC_MODE_r is set
 14 to the '001', '010', '101', or '110'.
- 15 • If PWR_CNTL_STEP_r corresponds to a power control step size (see 2.1.2.3.2 of [2]) is
 16 not supported by the mobile station.

17 The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to
 18 '00000111' (message cannot be handled by the current mobile station configuration) if any
 19 of the following conditions are detected:

- 20 • FPC_PRI_CHAN_r is set to '1' and only the Fundamental Channel is assigned.
- 21 • FPC_PRI_CHAN_r is set to '0' and only the Dedicated Control Channel is assigned.

22 If none of the above conditions are true, the mobile station shall process the message as
 23 follows at the action time (see 2.6.4.1.5) specified in the message:

- 24 • The mobile station shall store the power control step size (PWR_CNTL_STEP_S =
 25 PWR_CNTL_STEP_r).
- 26 • If FPC_INCL_r is equal to '1', the mobile station shall perform the following:
 - 27 – The mobile station shall set FPC_MODE_NO_SCH_S = FPC_MODE_r.
 - 28 – The mobile station shall set FPC_MODE_S = FPC_MODE_NO_SCH_S if there is no
 29 forward Supplemental Channel burst in progress (see 2.6.6.2.5.1.1).
 - 30 – The mobile station shall set FPC_PRI_CHAN_S to FPC_PRI_CHAN_r
 - 31 – If FPC_OLPC_FCH_INCL is equal to '1', the mobile station shall:
 - 32 + Set FPC_FCH_FER_S to FPC_FCH_FER_r.
 - 33 + If FPC_FCH_MIN_SETPT_r is not equal to '11111111', set
 34 FPC_FCH_MIN_SETPT_S to FPC_FCH_MIN_SETPT_r; otherwise, set
 35 FPC_FCH_MIN_SETPT_S to FPC_FCH_CURR_SETPT_S.

- 1 + If FPC_FCH_MAX_SETPT_r is not equal to '11111111', set
 2 FPC_FCH_MAX_SETPT_s to FPC_FCH_MAX_SETPT_r; otherwise, set
 3 FPC_FCH_MAX_SETPT_s to FPC_FCH_CURR_SETPT_s.
- 4 - If FPC_OLPC_DCCH_INCL is equal to '1', the mobile station shall:
 5 + Set FPC_DCCH_FER_s to FPC_DCCH_FER_r.
 6 + If FPC_DCCH_MIN_SETPT_r is not equal to '11111111', set
 7 FPC_DCCH_MIN_SETPT_s to FPC_DCCH_MIN_SETPT_r; otherwise, set
 8 FPC_DCCH_MIN_SETPT_s to FPC_DCCH_CURR_SETPT_s.
 9 + If FPC_DCCH_MAX_SETPT_r is not equal to '11111111', set
 10 FPC_DCCH_MAX_SETPT_s to FPC_DCCH_MAX_SETPT_r; otherwise, set
 11 FPC_DCCH_MAX_SETPT_s to FPC_DCCH_CURR_SETPT_s.
 12 - If FPC_INCL is equal to '1' and FPC_MODE is equal to '001', '010', '101', or '110',
 13 the mobile station shall:
 14 + Set FPC_SEC_CHAN_s to FPC_SEC_CHAN_r.
 15 - If NUM_SUP_r is not equal to '00', for each Supplemental Channel included in the
 16 message, the mobile station shall:
 17 + Set SCH_ID_s to SCH_ID_r.
 18 + Set FPC_SCH_FER_s[SCH_ID_s] to FPC_SCH_FER_r.
 19 + If FPC_SCH_MIN_SETPT_r is not equal to '11111111', set
 20 FPC_SCH_MIN_SETPT_s[SCH_ID_s] to FPC_SCH_MIN_SETPT_r; otherwise, set
 21 FPC_SCH_MIN_SETPT_s[SCH_ID_s] to FPC_SCH_CURR_SETPT_s.
 22 + If FPC_SCH_MAX_SETPT_r is not equal to '11111111', set
 23 FPC_SCH_MAX_SETPT_s[SCH_ID_s] to FPC_SCH_MAX_SETPT_r; otherwise, set
 24 FPC_SCH_MAX_SETPT_s[SCH_ID_s] to FPC_SCH_CURR_SETPT_s.
 25 - If FPC_THRESH_INCL is equal to '1', the mobile station shall set
 26 FPC_SETPT_THRESH_s to FPC_SETPT_THRESH_r.
 27 - If FPC_THRESH_SCH_INCL is equal to '1', the mobile station shall set
 28 FPC_SETPT_THRESH_SCH_s to FPC_SETPT_THRESH_SCH_r
 29 • If RPC_INCL_r is equal to '1' and the mobile station supports any Radio Configuration
 30 greater than 2, the mobile station shall perform the following:
 31 - If RPC_ADJ_REC_TYPE is equal to '0000', the mobile station shall update the
 32 Reverse Channel Adjustment Gain Table (see 2.1.2.3.3.2 of [2]) containing an
 33 offset relative to the Reverse Pilot Channel power for each reverse link code
 34 channel received in this message.
 35 - If RPC_ADJ_REC_TYPE is equal to '0001' or '0010', the mobile station shall
 36 update the Reverse Link Attribute Adjustment Gain Table (see 2.1.2.3.3.2 of [2])
 37 containing an offset relative to the Reverse Pilot Channel power for each
 38 transmission rate, frame length, coding type received in this message.

1 2.6.4.1.2 Service Configuration and Negotiation

2 During Traffic Channel operation, the mobile station and base station communicate
 3 through the exchange of Forward and Reverse Traffic Channel frames. The mobile station
 4 and base station use a common set of attributes for building and interpreting Traffic
 5 Channel frames. This set of attributes, referred to as a service configuration, consists of
 6 both negotiable and non-negotiable parameters.

7 The set of negotiable service configuration parameters consists of the following:

8 1. *Forward and Reverse Multiplex Options*: These control the way in which the
 9 information bits of the Forward and Reverse Traffic Channel frames, respectively,
 10 are divided into various types of traffic, such as signaling traffic, primary traffic and
 11 secondary traffic. A multiplex option together with a radio configuration specifies
 12 the frame structures and transmission rates (see [3]). The multiplex options which
 13 support Supplemental Code Channel transmission and Supplemental Channel
 14 transmission on the Forward and Reverse Traffic Channels are included in [3].
 15 Multiplex Options 3 through 16 also indicate the capability for supporting
 16 Supplemental Code Channel transmission on the Forward and Reverse Traffic
 17 Channels. Invocation of Supplemental Code Channel operation on the Forward or
 18 Reverse Traffic Channels occurs by the *Supplemental Channel Request Message*, the
 19 *Supplemental Channel Assignment Message*, and the *General Handoff Direction
 20 Message*. Invocation of Supplemental Channel operation on the Forward or Reverse
 21 Traffic Channels occurs by the *Supplemental Channel Request Mini Message*, the
 22 *Extended Supplemental Channel Assignment Message*, the *Forward Supplemental
 23 Channel Assignment Mini Message*, *Universal Handoff Direction Message*, and the
 24 *Reverse Supplemental Channel Assignment Mini Message*. The multiplex option
 25 used for the Forward Traffic Channel can be the same as that used for the Reverse
 26 Traffic Channel, or it can be different.

27 2. *Forward and Reverse Traffic Channel Configurations*: These include the Radio
 28 Configurations and other necessary attributes for the Forward and Reverse Traffic
 29 Channels. The Traffic Channel Configuration used can be different for the Forward
 30 and Reverse Traffic Channels or it can be the same.

31 3. *Forward and Reverse Traffic Channel Transmission Rates*: These are the transmission
 32 rates actually used for the Forward and Reverse Traffic Channels respectively. The
 33 transmission rates for the Forward Traffic Channel can include all of the
 34 transmission rates supported by the radio configuration associated with the
 35 Forward Traffic Channel multiplex option, or a subset of the supported rates.
 36 Similarly, the transmission rates used for the Reverse Traffic Channel can include
 37 all rates supported by the radio configuration associated with the Reverse Traffic
 38 Channel multiplex option, or a subset of the supported rates. The transmission
 39 rates used for the Forward Traffic Channel can be the same as those used for the
 40 Reverse Traffic Channel, or they can be different.

41 4. *Service Option Connections*: These are the services in use on the Traffic Channel.
 42 There can be multiple service option connections. It is also possible that there is no
 43 service option connection, in which case the mobile station uses the Reverse Traffic

1 Channel as follows:

- 2 • Sends null traffic on the Reverse Fundamental Channel, if the Fundamental
3 Channel is present.
- 4 • Sends signaling traffic on the Reverse Traffic Channel where r-dsch is mapped
5 to.

6 Associated with each service option connection are a service option, a Forward
7 Traffic Channel traffic type, a Reverse Traffic Channel traffic type, and a service
8 option connection reference. The associated service option formally defines the way
9 in which traffic bits are processed by the mobile station and base station. The
10 associated Forward and Reverse Traffic Channel traffic types specify the types of
11 traffic used to support the service option. A service option can require the use of a
12 particular type of traffic, such as primary or secondary, or it can accept more than
13 one traffic type. A service option can be one-way, in which case it can be supported
14 on the Forward Traffic Channel only or the Reverse Traffic Channel only.

15 Alternatively, a service option can be two-way, in which case it can be supported on
16 the Forward and Reverse Traffic Channels simultaneously. Connected service
17 options can also invoke operation on Supplemental Code Channels in either one or
18 both of the Forward and Reverse Traffic Channels by negotiating a multiplex option
19 that supports operation on Supplemental Code Channels (see [3] for Multiplex
20 options applicable to Supplemental Code Channels), and by using the appropriate
21 Supplemental Code Channel related messages (i.e., the *Supplemental Channel*
22 *Request Message*, the *Supplemental Channel Assignment Message*, and the *General*
23 *Handoff Direction Message*). After Supplemental Code Channels have been assigned
24 by the base station, the connected service option can transmit primary and/or
25 secondary traffic on Supplemental Code Channels. Connected service options can
26 also invoke operation on Supplemental Channels in either one or both of the
27 Forward and Reverse Traffic Channels by negotiating a multiplex option that
28 supports operation on Supplemental Channels (see [3] for Multiplex Options
29 applicable to Supplemental Channel) and by using the appropriate Supplemental
30 Channel related messages (i.e., the *Supplemental Channel Request Mini Message*, the
31 *Extended Supplemental Channel Assignment Message*, the *Forward Supplemental*
32 *Channel Assignment Mini Message*, the *Reverse Supplemental Channel Assignment*
33 *Mini Message*, and the *Universal Handoff Direction Message*). After Supplemental
34 Channels have been assigned by the base station, the connected service option can
35 transmit primary and/or secondary traffic on Supplemental Channels. The
36 associated service option connection reference provides a means for uniquely
37 identifying the service option connection. The reference serves to resolve ambiguity
38 when there are multiple service option connections in use.

39 The non-negotiable service configuration parameters are sent from the base station to the
40 mobile stations only, and consists of the following:

- 41 1. *Reverse Pilot Gating Rate*: This controls the way in which the reverse pilot is gated
42 on the Reverse Pilot Channel. The base station specifies the reverse pilot gating rate
43 to be used in the *Service Connect Message*, the *General Handoff Direction Message*,
44 and the *Universal Handoff Direction Message*.

- 1 2. *Forward and Reverse Power Control Parameters:* These consist of forward power
 2 control operation mode, outer loop power control parameters (e.g. target frame error
 3 rate, minimum E_b/N_t setpoint, and maximum E_b/N_t setpoint) for the Forward
 4 Fundamental Channel and Forward Dedicated Control Channel, and Power Control
 5 Subchannel indicator which indicates where the mobile station is to perform the
 6 primary inner loop estimation and the base station is to multiplex the Power Control
 7 Subchannel.
- 8 3. *Logical to Physical Mapping:* This is a table of logical to physical mapping entries,
 9 consisting of service reference identifier, logical resource, physical resource, forward
 10 flag, reverse flag, and priority.

11 The mobile station can request a default service configuration associated with a service
 12 option at call origination, and can request new service configurations during Traffic
 13 Channel operation. A requested service configuration can differ greatly from its predecessor
 14 or can be very similar. For example, the mobile station can request a service configuration
 15 in which all of the service option connections are different from those of the existing
 16 configuration; or the mobile station can request a service configuration in which the
 17 existing service option connections are maintained with only minor changes, such as a
 18 different set of transmission rates or a different mapping of service option connections to
 19 Forward and Reverse Traffic Channel traffic types.

20 If the mobile station requests a service configuration that is acceptable to the base station,
 21 they both begin using the new service configuration. If the mobile station requests a
 22 service configuration that is not acceptable to the base station, the base station can reject
 23 the requested service configuration or propose an alternative service configuration. If the
 24 base station proposes an alternative service configuration, the mobile station can accept or
 25 reject the base station's proposed service configuration, or propose yet another service
 26 configuration. This process, called service negotiation, ends when the mobile station and
 27 the base station find a mutually acceptable service configuration, or when either the mobile
 28 station or the base station rejects a service configuration proposed by the other.

29 It is also possible for the base station to request a default service configuration associated
 30 with a service option when paging the mobile station and to request new service
 31 configurations during Traffic Channel operation. The service negotiation proceeds as
 32 described above, but with the roles of the mobile station and base station reversed.

33 For CDMA mode operation in Band Class 0, the mobile station and base station can also
 34 use an alternative method for negotiating a service configuration known as service option
 35 negotiation. Service option negotiation is similar to service negotiation, but offers less
 36 flexibility for specifying the attributes of the service configuration. During service option
 37 negotiation, the base station or the mobile station specifies only which service option is to
 38 be used. There is no facility for explicitly specifying the multiplex options, traffic types or
 39 transmission rates to be used on the Forward and Reverse Traffic Channels in conjunction
 40 with the service option. Instead, implicit service configuration attributes are assumed. In
 41 particular, the Forward and Reverse multiplex options and transmission rates are assumed
 42 to be the default multiplex options and transmission rates associated with the requested
 43 service option, and the traffic type for both the Forward and Reverse Traffic Channels is

1 assumed to be primary traffic; furthermore, a service configuration established using
 2 service option negotiation is restricted to having only a single service option connection.

3 At mobile station origination and termination, the type of negotiation to use, either service
 4 negotiation or service option negotiation, is indicated in the *Channel Assignment Message*.
 5 Service negotiation is always used after the mobile station receives an *Extended Channel*
 6 *Assignment Message*. If a CDMA-to-CDMA hard handoff occurs during the call, the type of
 7 negotiation to use following the handoff is indicated in the *Extended Handoff Direction*
 8 *Message*, the *General Handoff Direction Message*, or the *Universal Handoff Direction*
 9 *Message*.

10 For CDMA mode operation in band classes other than Band Class 0, only service
 11 negotiation is to be used.

12 The following messages are used to support service negotiation:

- 13 1. *Service Request Message*: The mobile station can use this message to propose a
 14 service configuration, or to accept or reject a service configuration proposed in a
 15 *Service Response Message*. The base station can use this message to propose a
 16 service configuration, or to reject a service configuration proposed in a *Service*
 17 *Response Message*.
- 18 2. *Service Response Message*: The mobile station can use this message to accept or
 19 reject a service configuration proposed in a *Service Request Message*, or to propose
 20 an alternative service configuration. The base station can use this message to reject
 21 a service configuration proposed in a *Service Request Message*, or to propose an
 22 alternative service configuration.
- 23 3. *Service Connect Message*: The base station can use this message to accept a service
 24 configuration proposed in a *Service Request Message* or *Service Response Message*,
 25 and to instruct the mobile station to begin using the service configuration.
- 26 4. *Service Connect Completion Message*: The mobile station can use this message to
 27 acknowledge the transition to a new service configuration.
- 28 5. *Service Option Control Message*: The mobile station and base station can use this
 29 message to invoke service-option-specific functions.
- 30 6. *Extended Channel Assignment Message*: The base station can use this message to
 31 accept or reject the initial service configuration proposed by the mobile station in an
 32 *Origination Message* or a *Page Response Message*.

33 The following messages are used to support service option negotiation:

- 34 1. *Service Option Request Order*: The mobile station and base station can use this
 35 message either to request a service option or to suggest an alternative service
 36 option.
- 37 2. *Service Option Response Order*: The mobile station and base station can use this
 38 message to accept or to reject a service option request.
- 39 3. *Service Option Control Order*: The mobile station and base station can use this
 40 message to invoke service option specific functions.

1 The following messages are used to support both service negotiation and service option
2 negotiation:

- 3 1. *Origination Message*: The mobile station can use this message to propose an initial
4 service configuration.
- 5 2. *Channel Assignment Message*: The base station can use this message to accept or to
6 reject the initial service configuration proposed by the mobile station in an
7 *Origination Message* or a *Page Response Message* and to indicate which type of
8 negotiation, either service negotiation or service option negotiation, is to be used
9 during the call.
- 10 3. *Extended Handoff Direction Message*: The base station can use this message to indicate
11 which type of negotiation, either service negotiation or service option negotiation,
12 is to be used following a CDMA-to-CDMA hard handoff.
- 13 4. *General Handoff Direction Message*: The base station can use this message to indicate
14 which type of negotiation, either service negotiation or service option negotiation, is
15 to be used following a CDMA-to-CDMA hard handoff. The base station can use this
16 message to accept a service configuration proposed in a *Service Request Message* or
17 *Service Response Message*. The base station can also use this message to instruct
18 the mobile station to begin using the service configuration.
- 19 5. *General Page Message* or *Universal Page Message*: The base station can use a mobile-
20 station-addressed page in a *General Page Message* or in a *Universal Page Message*
21 to propose an initial service configuration.
- 22 6. *Page Response Message*: The mobile station can use this message to accept or to
23 reject the initial service configuration proposed by the base station in a mobile-
24 station-addressed page, or to propose an alternative initial service configuration.
- 25 7. *Status Request Message*: The base station can use this message to request service
26 capability information from the mobile station.
- 27 8. *Status Response Message*: The mobile station can use this message to return the
28 service capability information requested by the base station in a *Status Request*
29 *Message*.
- 30 9. *Extended Status Response Message*: The mobile station can use this message to
31 return the service capability information requested by the base station in a *Status*
32 *Request Message*.
- 33 10. *Universal Handoff Direction Message*: The base station can use this message to
34 indicate which type of negotiation, either service negotiation or service option
35 negotiation, is to be used following a CDMA-to-CDMA hard handoff. The base
36 station can use this message to accept a service configuration proposed in a *Service*
37 *Request Message* or *Service Response Message*. The base station can also use this
38 message to instruct the mobile station to begin using the service configuration.

1 2.6.4.1.2.1 Use of Variables

2 2.6.4.1.2.1.1 Maintaining the Service Request Sequence Number

3 The mobile station shall maintain a service request sequence number variable,
 4 SERV_REQ_NUM_S for use with service negotiation. Upon entering the *Mobile Station*
 5 *Control on the Traffic Channel State*, the mobile station shall set SERV_REQ_NUM_S to 0.
 6 Each time the mobile station sends a new *Service Request Message*, it shall set the
 7 SERV_REQ_SEQ field of the message to the current value of SERV_REQ_NUM_S, and shall
 8 then set SERV_REQ_NUM_S equal to (SERV_REQ_NUM_S + 1) modulo 8.

9 2.6.4.1.2.1.2 Maintaining the Service Negotiation Indicator Variable

10 The mobile station shall maintain a service negotiation indicator variable, SERV_NEG_S, to
 11 indicate which type of negotiation to use, either service negotiation or service option
 12 negotiation. The mobile station shall set SERV_NEG_S to enabled whenever service
 13 negotiation is to be used, and shall set SERV_NEG_S to disabled whenever service option
 14 negotiation is to be used. The precise rules for setting SERV_NEG_S are specified in 2.6.4.2
 15 and 2.6.6.2.5.1.

16 For CDMA operation in band classes other than Band Class 0, the mobile station shall set
 17 SERV_NEG_S to enabled.

18 2.6.4.1.2.1.3 Maintaining the Service Option Request Number

19 The mobile station shall maintain a service option request number variable, SO_REQ_S, for
 20 use with service option negotiation. The mobile station shall set SO_REQ_S to a special
 21 value, NULL, if the mobile station does not have an outstanding service option request. If
 22 the mobile station has an outstanding service option request, the mobile station shall set
 23 SO_REQ_S to the number of the service option associated with the outstanding request.

24 2.6.4.1.2.2 Service Subfunctions

25 As illustrated in Figure 2.6.4.1.2.2-1, the mobile station supports service configuration and
 26 negotiation by performing the following set of service subfunctions:

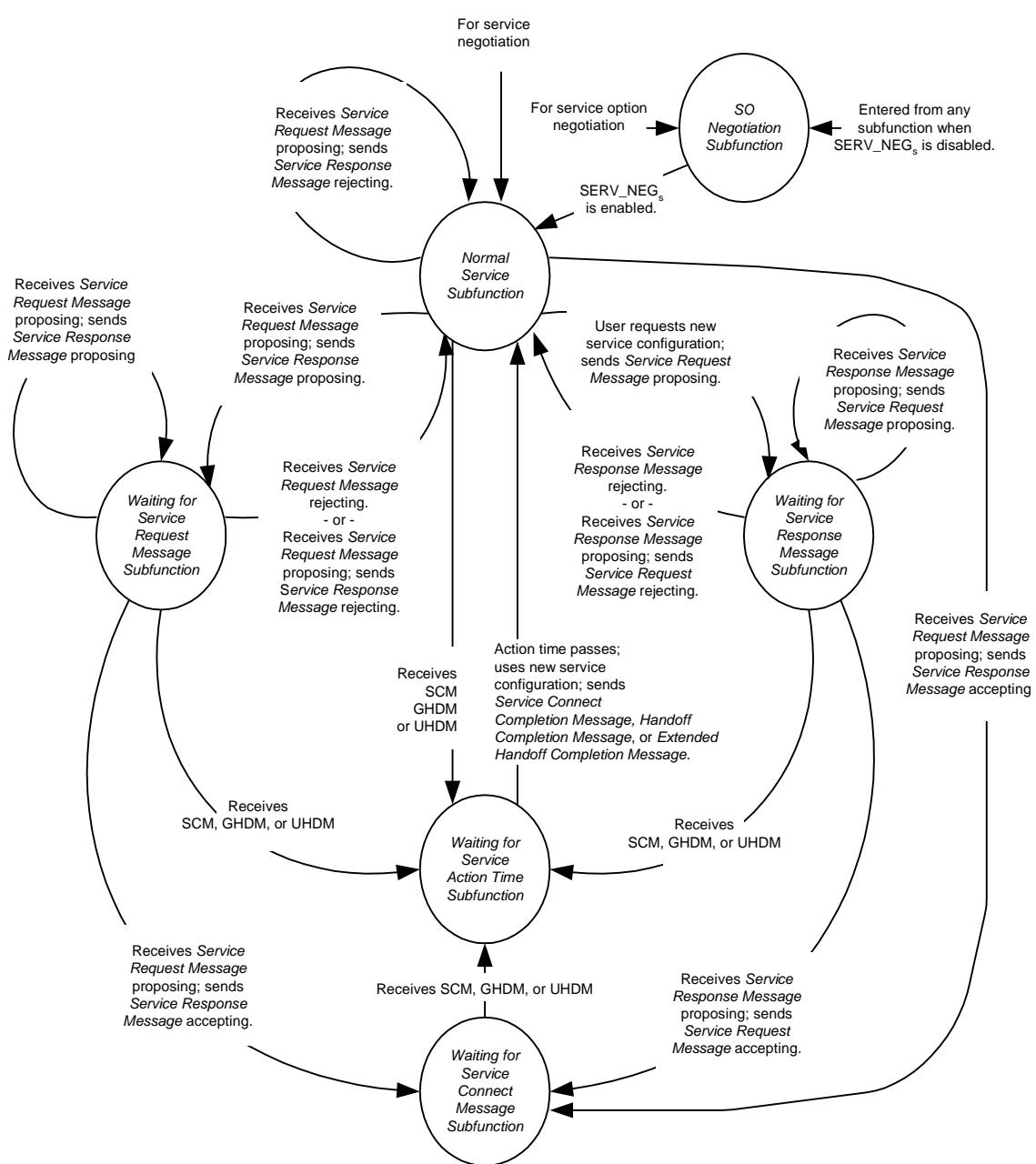
- 27 • *Normal Service Subfunction* - While this subfunction is active, the mobile station
 28 processes service configuration requests from the user and from the base station.
- 29 • *Waiting for Service Request Message Subfunction* - While this subfunction is active,
 30 the mobile station waits to receive a *Service Request Message*.
- 31 • *Waiting for Service Response Message Subfunction* - While this subfunction is active,
 32 the mobile station waits to receive a *Service Response Message*.
- 33 • *Waiting for Service Connect Message Subfunction* - While this subfunction is active,
 34 the mobile station waits to receive a *Service Connect Message*, a *General Handoff*
 35 *Direction Message*, or a *Universal Handoff Direction Message* containing a service
 36 configuration record.

- 1 • *Waiting for Service Action Time Subfunction* - While this subfunction is active, the
2 mobile station waits for the action time associated with a new service configuration
3 and then sends a *Service Connect Completion Message*, a *Handoff Completion*
4 *Message*, or an *Extended Handoff Completion Message*.
- 5 • *SO Negotiation Subfunction* - While this subfunction is active, the mobile station
6 supports service option negotiation with the base station. This subfunction is only
7 used while operating in Band Class 0.

8 The *SO Negotiation Subfunction* supports service option negotiation. All of the other service
9 subfunctions support service negotiation.

10 At any given time during Traffic Channel operation, only one of the service subfunctions is
11 active. For example, when the mobile station first enters the *Traffic Channel Initialization*
12 *Substate* of the *Mobile Station Control on the Traffic Channel State*, the *Normal Service*
13 *Subfunction*, the *Waiting for Service Connect Message Subfunction* or the *SO Negotiation*
14 *Subfunction* is active. Each of the other service subfunctions may become active in
15 response to various events which occur during the Traffic Channel substates. Typically, the
16 mobile station processes events pertaining to service configuration and negotiation in
17 accordance with the requirements for the active service subfunction, however, some Traffic
18 Channel substates do not allow for the processing of certain events pertaining to service
19 configuration and negotiation, or specify requirements for processing such events which
20 supersede the requirements of the active service subfunction.

21

**Notes:**

- SCM stands for Service Connect Message.
- GHDM stands for General Handoff Direction Message.
- UHDM stands for Universal Handoff Direction Message.
- Processing for special cases, such as timeouts and errors, is not shown in this diagram.

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Figure 2.6.4.1.2.2-1. Mobile Station Service Subfunctions

1 2.6.4.1.2.2.1 Normal Service Subfunction

2 While this subfunction is active, the mobile station processes service configuration requests
 3 from the user and from the base station.

4 While the *Normal Service Subfunction* is active, the mobile station shall perform the
 5 following:

- 6 • The mobile station shall process Forward and Reverse Traffic Channel frames in
 7 accordance with the current service configuration. The mobile station shall discard
 8 any Forward Traffic Channel frame which has a format that is not supported by the
 9 mobile station. The mobile station may discard any type of Forward Traffic Channel
 10 traffic that is not signaling traffic and is not part of the current service
 11 configuration.
- 12 • To initiate service negotiation for a new service configuration, the mobile station
 13 shall send a *Service Request Message* to propose the new service configuration. The
 14 mobile station shall activate the *Waiting for Service Response Message Subfunction*.
- 15 • For any service option connection that is part of the current service configuration,
 16 the mobile station may send a *Service Option Control Message* to invoke a service
 17 option specific function in accordance with the requirements for the associated
 18 service option.
- 19 • If SERV_NEG_S changes from enabled to disabled (see 2.6.6.2.5.1), the mobile station
 20 shall activate the *SO Negotiation Subfunction*.
- 21 • If the mobile station receives one of the following service negotiation messages, the
 22 mobile station shall process the message according to the specified requirements:
 - 23 1. *Service Connect Message*: The mobile station shall perform the following:
 - 24 • If USE_OLD_SERV_CONFIG_r equals '00', the mobile station shall perform the
 25 following: If the mobile station accepts the service configuration specified in
 26 the message, the mobile station shall activate the Waiting for Service Action
 27 Time Subfunction; otherwise, the mobile station shall send a Mobile Station
 28 Reject Order (ORDQ = '00000111') within T_{56m} seconds.
 - 29 • If USE_OLD_SERV_CONFIG_r equals '01', the mobile station shall perform the
 30 following: If the mobile station accepts the service configuration currently
 31 stored at the mobile station, the mobile station shall activate the Waiting for
 32 Service Action Time Subfunction; otherwise, the mobile station shall send a
 33 Mobile Station Reject Order (ORDQ = '00000111') within T_{56m} seconds.
 - 34 • If USE OLD SERV CONFIG_r equals '10', the mobile station shall perform the
 35 following: If the mobile station accepts the service configuration resulting
 36 from updating the stored service configuration with the service configuration
 37 received in this message, the mobile station shall activate the Waiting for
 38 Service Action Time Subfunction; otherwise, the mobile station shall send a
 39 Mobile Station Reject Order (ORDQ = '00000111') within T_{56m} seconds.

- 1 2. *Service Option Control Message*: If the service option connection specified by the
 2 message is part of the current service configuration, and the service option
 3 specified by the message is the same as the service option associated with the
 4 service option connection, the mobile station shall interpret the action time of
 5 the message as specified in 2.6.4.1.5, and shall process the message in
 6 accordance with the requirements for the service option; otherwise, the mobile
 7 station shall send a *Mobile Station Reject Order* (ORDQ = '00000111') within
 8 T_{56m} seconds.
- 9 3. *Service Request Message*: The mobile station shall process the message as
 10 follows:
- 11 - If the purpose of the message is to reject a proposed service configuration,
 12 the mobile station shall send a *Mobile Station Reject Order* (ORDQ =
 13 '00000010') within T_{56m} seconds.
- 14 - If the purpose of the message is to propose a service configuration, the
 15 mobile station shall process the message as follows:
- 16 + If the mobile station accepts the proposed service configuration, the
 17 mobile station shall send a *Service Response Message* to accept the
 18 proposed service configuration within T_{59m} seconds. The mobile station
 19 shall activate the *Waiting for Service Connect Message Subfunction*.
- 20 + If the mobile station does not accept the proposed service configuration
 21 and does not have an alternative service configuration to propose, the mobile
 22 station shall send a *Service Response Message* to reject the
 23 proposed service configuration within T_{59m} seconds.
- 24 + If the mobile station does not accept the proposed service configuration
 25 and has an alternative service configuration to propose, the mobile
 26 station shall send a *Service Response Message* to propose the alternative
 27 service configuration within T_{59m} seconds. The mobile station shall
 28 activate the *Waiting for Service Request Message Subfunction*.

29 **4.3. Service Response Message**: The mobile station shall send a *Mobile Station*
 30 *Reject Order* (ORDQ = '00000010') within T_{56m} seconds.

31 **5.4. General Handoff Direction Message**: If the SCR_INCLUDED field is included
 32 in this message and is set to '1':

33 If the mobile station has not rejected this message, the mobile station shall
 34 activate the *Waiting for Service Action Time Subfunction*.

35 6. *Universal Handoff Direction Message*: If the SCR_INCLUDED field is included in
 36 this message and is set to '1':

37 If the mobile station has not rejected this message, the mobile station shall
 38 activate the *Waiting for Service Action Time Subfunction*.

- 39 • If the mobile station receives one of the following service option negotiation
 40 messages, the mobile station shall send a *Mobile Station Reject Order* (ORDQ =
 41 '00000010') within T_{56m} seconds:

- 1 1. *Service Option Request Order*
- 2 2. *Service Option Response Order*
- 3 3. *Service Option Control Order*

4 2.6.4.1.2.2.2 Waiting for Service Request Message Subfunction

5 While this subfunction is active, the mobile station waits to receive a *Service Request*
6 *Message*.

7 Upon activation of the *Waiting for Service Request Message Subfunction*, the mobile station
8 shall set the subfunction timer for T_{68m} seconds.

9 While the *Waiting for Service Request Message Subfunction* is active, the mobile station shall
10 perform the following:

- 11 • If the subfunction timer expires, the mobile station shall activate the *Normal Service*
12 *Subfunction*.
- 13 • The mobile station shall process Forward and Reverse Traffic Channel frames in
14 accordance with the current service configuration. The mobile station shall discard
15 any Forward Traffic Channel frame which has a format that is not supported by the
16 mobile station. The mobile station may discard any type of Forward Traffic Channel
17 traffic that is not signaling traffic and is not part of the current service
18 configuration.
- 19 • The mobile station shall not initiate service negotiation for a new service
20 configuration.
- 21 • For any service option connection that is part of the current service configuration,
22 the mobile station may send a *Service Option Control Message* to invoke a service
23 option specific function in accordance with the requirements for the associated
24 service option.
- 25 • If SERV_NEG_S changes from enabled to disabled (see 2.6.6.2.5.1), the mobile station
26 shall activate the *SO Negotiation Subfunction*.
- 27 • If the mobile station receives one of the following service negotiation messages, the
28 mobile station shall process the message according to the specified requirements:
 - 29 1. *Service Connect Message*: The mobile station shall perform the following:
 - 30 • If USE_OLD_SERV_CONFIG_R equals 'Q0', the mobile station shall perform
31 the following: If the mobile station accepts the service configuration
32 specified in the message, the mobile station shall activate the *Waiting for*
33 *Service Action Time Subfunction*; otherwise, the mobile station shall send
34 a *Mobile Station Reject Order* (ORDQ = '00000111') within T_{56m} seconds
35 and shall activate the *Normal Service Subfunction*.
 - 36 • If USE_OLD_SERV_CONFIG_R equals 'Q1', the mobile station shall perform
37 the following: If the mobile station accepts the service configuration
38 currently stored at the mobile station, the mobile station shall activate
39 the *Waiting for Service Action Time Subfunction*; otherwise, the mobile

station shall send a Mobile Station Reject Order (ORDQ = '00000111') within T_{56m} seconds.

- If USE OLD SERV CONFIG_r equals '10', the mobile station shall perform the following: If the mobile station accepts the service configuration resulting from updating the stored service configuration with the service configuration received in this message, the mobile station shall activate the Waiting for Service Action Time Subfunction; otherwise, the mobile station shall send a Mobile Station Reject Order (ORDQ = '00000111') within T_{56m} seconds.

2. *Service Option Control Message:* If the service option connection specified by the message is part of the current service configuration, and the service option specified by the message is the same as the service option associated with the service option connection, the mobile station shall interpret the action time of the message as specified in 2.6.4.1.5, and shall process the message in accordance with the requirements for the service option; otherwise, the mobile station shall send a *Mobile Station Reject Order* (ORDQ = '00000111') within T_{56m} seconds.
3. *Service Request Message:* The mobile station shall process the message as follows:
 - If the purpose of the message is to reject a proposed service configuration, the mobile station shall activate the *Normal Service Subfunction*.
 - If the purpose of the message is to propose a service configuration, the mobile station shall process the message as follows:
 - + If the mobile station accepts the proposed service configuration, the mobile station shall send a *Service Response Message* to accept the proposed service configuration within T_{59m} seconds. The mobile station shall activate the *Waiting for Service Connect Message Subfunction*.
 - + If the mobile station does not accept the proposed service configuration and does not have an alternative service configuration to propose, the mobile station shall send a *Service Response Message* to reject the proposed service configuration within T_{59m} seconds. The mobile station shall activate the *Normal Service Subfunction*.
 - + If the mobile station does not accept the proposed service configuration and has an alternative service configuration to propose, the mobile station shall send a *Service Response Message* to propose the alternative service configuration within T_{59m} seconds. The mobile station shall reset the subfunction timer for T_{68m} seconds.
4. *Service Response Message:* The mobile station shall send a *Mobile Station Reject Order* (ORDQ = '00000010') within T_{56m} seconds.
5. *General Handoff Direction Message:* If the SCR_INCLUDED field is included in this message and is set to '1':

If the mobile station has not rejected this message, the mobile station shall activate the *Waiting for Service Action Time Subfunction*; otherwise, the mobile station shall activate the *Normal Service Subfunction*.

6. *Universal Handoff Direction Message*: If the SCR_INCLUDED field is included in this message and is set to '1':

If the mobile station has not rejected this message, the mobile station shall activate the *Waiting for Service Action Time Subfunction*; otherwise, the mobile station shall activate the *Normal Service Subfunction*.

- If the mobile station receives one of the following service option negotiation messages, the mobile station shall send a *Mobile Station Reject Order* (ORDQ = '00000010') within T56m seconds:
 1. *Service Option Request Order*
 2. *Service Option Response Order*
 3. *Service Option Control Order*

2.6.4.1.2.2.3 Waiting for Service Response Message Subfunction

While this subfunction is active, the mobile station waits to receive a *Service Response Message*.

Upon activation of the *Waiting for Service Response Message Subfunction*, the mobile station shall set the subfunction timer for T68m seconds.

While the *Waiting for Service Response Message Subfunction* is active, the mobile station shall perform the following:

- If the subfunction timer expires, the mobile station shall activate the *Normal Service Subfunction*.
- The mobile station shall process Forward and Reverse Traffic Channel frames in accordance with the current service configuration. The mobile station shall discard any Forward Traffic Channel frame which has a format that is not supported by the mobile station. The mobile station may discard any type of Forward Traffic Channel traffic that is not signaling traffic and is not part of the current service configuration.
- The mobile station shall not initiate service negotiation for a new service configuration.
- For any service option connection that is part of the current service configuration, the mobile station may send a *Service Option Control Message* to invoke a service option specific function in accordance with the requirements for the associated service option.
- If SERV_NEG_S changes from enabled to disabled (see 2.6.6.2.5.1), the mobile station shall activate the *SO Negotiation Subfunction*.

- 1 • If the mobile station receives one of the following service negotiation messages, the
2 mobile station shall process the message according to the specified requirements:
- 3 1. *Service Connect Message*: The mobile station shall perform the following:
 - 4 • If USE_OLD_SERV_CONFIG_r equals '00', the mobile station shall perform the
5 following: If the mobile station accepts the service configuration specified in
6 the message, the mobile station shall activate the *Waiting for Service Action*
7 *Time Subfunction*; otherwise, the mobile station shall send a *Mobile Station*
8 *Reject Order* (ORDQ = '00000111') within T_{56m} seconds and shall activate
9 the *Normal Service Subfunction*.
 - 10 • If USE_OLD_SERV_CONFIG_r equals '01', the mobile station shall perform the
11 following: If the mobile station accepts the service configuration currently
12 stored at the mobile station, the mobile station shall activate the *Waiting for*
13 *Service Action Time Subfunction*; otherwise, the mobile station shall send a
14 *Mobile Station Reject Order* (ORDQ = '00000111') within T_{56m} seconds.
 - 15 • If USE_OLD_SERV_CONFIG_r equals '10', the mobile station shall perform the
16 following: If the mobile station accepts the service configuration resulting
17 from updating the stored service configuration with the service configuration
18 received in this message, the mobile station shall activate the Waiting for
19 Service Action Time Subfunction; otherwise, the mobile station shall send a
20 Mobile Station Reject Order (ORDQ = '00000111') within T_{56m} seconds.
- 21 2. *Service Option Control Message*: If the service option connection specified by the
22 message is part of the current service configuration, and the service option
23 specified by the message is the same as the service option associated with the
24 service option connection, the mobile station shall interpret the action time of
25 the message as specified in 2.6.4.1.5, and shall process the message in
26 accordance with the requirements for the service option; otherwise, the mobile
27 station shall send a *Mobile Station Reject Order* (ORDQ = '00000111') within
28 T_{56m} seconds.
- 29 3. *Service Request Message*: The mobile station shall process the message as
30 follows:
 - 31 – If the purpose of the message is to reject a proposed service configuration,
32 the mobile station shall send a *Mobile Station Reject Order* (ORDQ =
33 '00000010') within T_{56m} seconds.
 - 34 – If the purpose of the message is to propose a service configuration, the
35 mobile station shall discontinue processing the service configuration
36 requested by the user and shall process the message as follows:
 - 37 + If the mobile station accepts the proposed service configuration, the
38 mobile station shall send a *Service Response Message* to accept the
39 proposed service configuration within T_{59m} seconds. The mobile station
40 shall activate the *Waiting for Service Connect Message Subfunction*.

1 + If the mobile station does not accept the proposed service configuration
 2 and does not have an alternative service configuration to propose, the
 3 mobile station shall send a *Service Response Message* to reject the
 4 proposed service configuration within T_{59m} seconds. The mobile station
 5 shall activate the *Normal Service Subfunction*.

6 + If the mobile station does not accept the proposed service configuration
 7 and has an alternative service configuration to propose, the mobile
 8 station shall send a *Service Response Message* to propose the alternative
 9 service configuration within T_{59m} seconds. The mobile station shall
 10 activate the *Waiting for Service Request Message Subfunction*.

11 4. *Service Response Message*: The mobile station shall process the message as
 12 follows:

- 13 – If the service request sequence number (SERV_REQ_SEQ_r) from the message
 14 does not match the sequence number of the *Service Request Message* for
 15 which the mobile station is expecting a response, the mobile station shall not
 16 process the other HLayer 3 fields of the message.
- 17 – If the purpose of the message is to reject the service configuration proposed
 18 in the corresponding *Service Request Message*, the mobile station shall
 19 activate the *Normal Service Subfunction*. The mobile station may indicate to
 20 the user that the requested service configuration has been rejected.
- 21 – If the purpose of the message is to propose a service configuration, the
 22 mobile station shall process the message as follows:
 - 23 + If the mobile station accepts the proposed service configuration, the
 24 mobile station shall send a *Service Request Message* to accept the
 25 proposed service configuration within T_{59m} seconds. The mobile station
 26 shall activate the *Waiting for Service Connect Message Subfunction*.
 - 27 + If the mobile station does not accept the proposed service configuration
 28 and does not have an alternative service configuration to propose, the mobile
 29 station shall send a *Service Request Message* to reject the
 30 proposed service configuration within T_{59m} seconds. The mobile station
 31 shall activate the *Normal Service Subfunction*.
 - 32 + If the mobile station does not accept the proposed service configuration
 33 and has an alternative service configuration to propose, the mobile
 34 station shall send a *Service Request Message* to propose the alternative
 35 service configuration within T_{59m} seconds. The mobile station shall
 36 reset the subfunction timer for T_{68m} seconds.

37 5. *General Handoff Direction Message*: If the SCR_INCLUDED field is included in
 38 this message and is set to '1':

39 If the mobile station has not rejected this message, the mobile station shall
 40 activate the *Waiting for Service Action Time Subfunction*; otherwise, the mobile
 41 station shall activate the *Normal Service Subfunction*.

1 6. *Universal Handoff Direction Message*: If the SCR_INCLUDED field is included in
 2 this message and is set to '1':

3 If the mobile station has not rejected this message, the mobile station shall
 4 activate the *Waiting for Service Action Time Subfunction*; otherwise, the mobile
 5 station shall activate the *Normal Service Subfunction*.

6 • If the mobile station receives one of the following service option negotiation
 7 messages, the mobile station shall send a *Mobile Station Reject Order* (ORDQ =
 8 '00000010') within T_{56m} seconds:

- 9 1. *Service Option Request Order*
 10 2. *Service Option Response Order*
 11 3. *Service Option Control Order*

12 2.6.4.1.2.2.4 Waiting for Service Connect Message Subfunction

13 While this subfunction is active, the mobile station waits to receive a *Service Connect*
 14 *Message*, a *General Handoff Direction Message*, or a *Universal Handoff Direction Message*
 15 containing a service configuration record.

16 Upon activation of the *Waiting for Service Connect Message Subfunction*, the mobile station
 17 shall set the subfunction timer for T_{65m} seconds.

18 While the *Waiting for Service Connect Message Subfunction* is active, the mobile station shall
 19 perform the following:

- 20 • If the subfunction timer expires, the mobile station shall activate the *Normal Service*
 21 *Subfunction*.
 - 22 • The mobile station shall process Forward and Reverse Traffic Channel frames in
 23 accordance with the current service configuration. The mobile station shall discard
 24 any Forward Traffic Channel frame which has a format that is not supported by the
 25 mobile station. The mobile station may discard any type of Forward Traffic Channel
 26 traffic that is not signaling traffic and is not part of the current service
 27 configuration.
 - 28 • The mobile station shall not initiate service negotiation for a new service
 29 configuration.
 - 30 • For any service option connection that is part of the current service configuration,
 31 the mobile station may send a *Service Option Control Message* to invoke a service
 32 option specific function in accordance with the requirements for the associated
 33 service option.
 - 34 • If SERV_NEG_S changes from enabled to disabled (see 2.6.6.2.5.1), the mobile station
 35 shall activate the *SO Negotiation Subfunction*.
 - 36 • If the mobile station receives one of the following service negotiation messages, the
 37 mobile station shall process the message according to the specified requirements:
- 38 1. *Service Connect Message*: The mobile station shall perform the following:

- 1 • If USE_OLD_SERV_CONFIG_r equals '00', the mobile station shall perform the
2 following: If the mobile station accepts the service configuration specified in
3 the message, the mobile station shall activate the *Waiting for Service Action*
4 *Time Subfunction*; otherwise, the mobile station shall send a *Mobile Station*
5 *Reject Order* (ORDQ = '00000111') within T_{56m} seconds and shall activate
6 the *Normal Service Subfunction*.
 - 7 • If USE_OLD_SERV_CONFIG_r equals '01', the mobile station shall perform the
8 following: If the mobile station accepts the service configuration currently
9 stored at the mobile station, the mobile station shall activate the Waiting for
10 Service Action Time Subfunction; otherwise, the mobile station shall send a
11 Mobile Station Reject Order (ORDQ = '00000111') within T_{56m} seconds.
 - 12 • If USE OLD SERV CONFIG_r equals '10', the mobile station shall perform the
13 following: If the mobile station accepts the service configuration resulting
14 from updating the stored service configuration with the service configuration
15 received in this message, the mobile station shall activate the Waiting for
16 Service Action Time Subfunction; otherwise, the mobile station shall send a
17 Mobile Station Reject Order (ORDQ = '00000111') within T_{56m} seconds.
- 18 2. *Service Option Control Message*: If the service option connection specified by the
19 message is part of the current service configuration, and the service option
20 specified by the message is the same as the service option associated with the
21 service option connection, the mobile station shall interpret the action time of
22 the message as specified in 2.6.4.1.5, and shall process the message in
23 accordance with the requirements for the service option; otherwise, the mobile
24 station shall send a *Mobile Station Reject Order* (ORDQ = '00000111') within
25 T_{56m} seconds.
- 26 3. *Service Request Message*: The mobile station shall process the message as
27 follows:
- 28 – If the purpose of the message is to reject a proposed service configuration,
29 the mobile station shall send a *Mobile Station Reject Order* (ORDQ =
30 '00000010') within T_{56m} seconds.
 - 31 – If the purpose of the message is to propose a service configuration, the
32 mobile station shall process the message as follows:
 - 33 + If the mobile station accepts the proposed service configuration, the
34 mobile station shall send a *Service Response Message* to accept the
35 proposed service configuration within T_{59m} seconds. The mobile station
36 shall reset the subfunction timer for T_{65m} seconds.
 - 37 + If the mobile station does not accept the proposed service configuration
38 and does not have an alternative service configuration to propose, the
39 mobile station shall send a *Service Response Message* to reject the
40 proposed service configuration within T_{59m} seconds. The mobile station
41 shall activate the *Normal Service Subfunction*.

- 1 + If the mobile station does not accept the proposed service configuration
 2 and has an alternative service configuration to propose, the mobile
 3 station shall send a *Service Response Message* to propose the alternative
 4 service configuration within T_{59m} seconds. The mobile station shall
 5 activate the *Waiting for Service Request Message Subfunction*.
- 6 4. *Service Response Message*: The mobile station shall send a *Mobile Station Reject*
 7 *Order* (ORDQ = '00000010') within T_{56m} seconds.
- 8 5. *General Handoff Direction Message*: If the SCR_INCLUDED field is included in
 9 this message and is set to '1':
 10 If the mobile station has not rejected this message, the mobile station shall
 11 activate the *Waiting for Service Action Time Subfunction*; otherwise, the mobile
 12 station shall activate the *Normal Service Subfunction*.
- 13 6. *Universal Handoff Direction Message*: If the SCR_INCLUDED field is included in
 14 this message and is set to '1':
 15 If the mobile station has not rejected this message, the mobile station shall
 16 activate the *Waiting for Service Action Time Subfunction*; otherwise, the mobile
 17 station shall activate the *Normal Service Subfunction*.
- 18 • If the mobile station receives one of the following service option negotiation
 19 messages, the mobile station shall send a *Mobile Station Reject Order* (ORDQ =
 20 '00000010') within T_{56m} seconds:
 21 1. *Service Option Request Order*
 22 2. *Service Option Response Order*
 23 3. *Service Option Control Order*
- 24 2.6.4.1.2.2.5 Waiting for Service Action Time Subfunction
 25 While this subfunction is active, the mobile station waits for the action time associated with
 26 a new service configuration. If the action time was specified by a *Service Connect Message*,
 27 the mobile station shall send the *Service Connect Completion Message* at the action time.
 28 While the *Wait for Service Action Time Subfunction* is active, the mobile station shall perform
 29 the following:
 30 • Prior to the action time associated with the *Service Connect Message*, *General*
 31 *Handoff Direction Message* (containing a service configuration record), or *Universal*
 32 *Handoff Direction Message* (containing a service configuration record), the mobile
 33 station shall process Forward and Reverse Traffic Channel frames in accordance
 34 with the current service configuration. The mobile station shall discard any
 35 Forward Traffic Channel frame which has a format that is not supported by the
 36 mobile station. The mobile station may discard any type of Forward Traffic Channel
 37 traffic that is not signaling traffic and is not part of the current service
 38 configuration.

- 1 • At the action time associated with the *Service Connect Message*, *General Handoff*
 2 *Direction Message* (containing a service configuration record) or *Universal Handoff*
 3 *Direction Message* (containing a service configuration record), the mobile station
 4 shall perform the following¹⁰:
 - 5 – If this is a *Service Connect Message* with USE_OLD_SERV_CONFIG_r equals '01',
 6 the mobile station shall perform the following:
 - 7 + The Call Control instance identified by NULL shall also be identified by the
 8 connection reference assigned to the first service option connection in the
 9 stored Service Configuration information record.
 - 10 + For each service option connection (with corresponding connection reference
 11 CON_REF_i) in the stored service configuration record, if any, except for the
 12 first one, Layer 3 shall instantiate a Call Control instance (as specified in
 13 2.6.10) with a 'restore indication'. The mobile station shall identify each of
 14 these Call Control instances by the corresponding CON_REF_i.
 - 15 + The mobile station shall begin to use the service configuration which was
 16 stored by the mobile station when it left the *Mobile Station Control on the*
 17 *Traffic Channel State* as the current service configuration and shall begin to
 18 process Forward and Reverse Traffic Channel frames accordingly. The mobile
 19 station shall send a *Service Connect Completion Message* within T_{56m}
 20 seconds after the action time. The mobile station shall exit this subfunction
 21 and activate the *Normal Service Subfunction*.
 - 22 + The mobile station shall store the synchronization identifier corresponding to
 23 the stored service configuration as SYNC_ID_S.
 - 24 – If this is a *Service Connect Message* with USE OLD SERV CONFIG_r equals '10',
 25 the mobile station shall perform the following:
 - 26 + The mobile station shall update the stored service configuration with the
 27 received service configuration as follows:
 - 28 o The mobile station shall process the received Service Configuration
 29 Record as specified in 2.6.4.1.12.

¹⁰ Note that these procedures that take place at the action time may not occur for this message if a GHDM/UHDM with SCR INCLUDED equal to '1' is received before the action time of this message. In this case, these procedures take place for the new message. One exception is that the call assignments from this message take effect at the action time of this message regardless of the call assignments from the new message.

- 1 o The mobile station shall process the received Non-negotiable Service
 2 Configuration Record as specified in 2.6.4.1.13.
- 3 + The mobile station shall begin to use the updated service configuration as
 4 the current service configuration and shall begin to process Forward and
 5 Reverse Traffic Channel frames accordingly. The mobile station shall send a
 6 Service Connect Completion Message within T_{56m} seconds after the action
 7 time. The mobile station shall exit this subfunction and activate the Normal
 8 Service Subfunction
- 9 + The mobile station shall store (if included) the synchronization identifier
 10 received from the base station corresponding to this updated service
 11 configuration (SYNC ID_S = SYNC ID_R).
- 12 – Otherwise, the mobile station shall perform the following:
- 13 + Prior to this message, if a Service Connect Message, General Handoff
 14 Direction Message (with service configuration), or Universal Handoff Direction
 15 Message (with service configuration) was not successfully received or
 16 accepted by the mobile station since entering the Traffic Channel Substate,
 17 the mobile station shall perform the following:
- 18 o The mobile station shall delete the stored service configuration (if any).
- 19 o The mobile station shall set the service configuration parameters (i.e.
 20 those signaled via the Service Configuration information record and the
 21 Non-Negotiable Service Configuration information record) to their default
 22 values as specified in 2.6.4.2.
- 23 + The mobile station shall process the received Service Configuration Record as
 24 specified in 2.6.4.1.12, shall process the received Non-negotiable Service
 25 Configuration Record as specified in 2.6.4.1.13 (if included), and shall begin
 26 to use the service configuration specified by the *Service Connect Message*,
 27 *General Handoff Direction Message* or *Universal Handoff Direction Message*
 28 containing a service configuration record as the current service configuration
 29 and shall begin to process Forward and Reverse Traffic Channel frames
 30 accordingly. If the action time was specified by a *Service Connect Message*,
 31 the mobile station shall send a *Service Connect Completion Message* within
 32 T_{56m} seconds after the action time. The mobile station shall exit this
 33 subfunction and activate the *Normal Service Subfunction*.
- 34 + The mobile station shall store (if included) the synchronization identifier
 35 received from the base station corresponding to this service configuration
 36 (SYNC ID_S = SYNC ID_R).

- + If P_REV_IN_USE_S is greater than six, the Non-Negotiable Service Configuration information record is not included in this message, and the value of SR_ID corresponding to the logical resource of '0000' in the LOGICAL_TO_PHYSICAL_MAPPING_TABLE is NULL, the mobile station shall set this SR_ID field to the value specified in the Service Configuration information record.
- + If CC_INFO_INCL_r equals '1', then for each of the NUM_CALLS_ASSIGN_r occurrences of the call control parameters included in the message, the mobile station shall perform the following:
 - o If RESPONSE_IND_r equals '1', and TAG_r matches any of the TAG values contained in the list TAG_OUTSTANDING_LIST, the HLayer 3 shall instantiate a Call Control instance (as specified in 2.6.10). The mobile station shall identify this Call Control instance by CON_REF_r. The mobile station shall disable the enhanced origination timer associated with this call origination and remove the TAG value specified by TAG_r from the list TAG_OUTSTANDING_LIST.
 - o If RESPONSE_IND_r equals '0', the mobile station shall store the bypass indicator (BYPASS_ALERT_ANSWER_S = BYPASS_ALERT_ANSWER_r) and the HLayer 3 shall instantiate a Call Control instance (as specified in 2.6.10). The mobile station shall identify this Call Control instance by CON_REF_r.
- The mobile station shall not initiate service negotiation for a new service configuration.
- For any service option connection that is part of the current or pending service configuration, the mobile station may send a *Service Option Control Message* to invoke a service option specific function in accordance with the requirements for the associated service option.
- If SERV_NEG_S changes from enabled to disabled (see 2.6.6.2.5.1), the mobile station shall activate the *SO Negotiation Subfunction*.
- If the mobile station receives one of the following service negotiation messages, the mobile station shall process the message according to the specified requirements:
 1. *Service Connect Message*: The mobile station shall send a *Mobile Station Reject Order* (ORDQ = '00000010') within T56m seconds.
 2. *Service Option Control Message*: If the service option connection specified by the message is part of the current or pending service configuration, and the service option specified by the message is the same as the service option associated with the service option connection, the mobile station shall interpret the action time of the message as specified in 2.6.4.1.5, and shall process the message in accordance with the requirements for the service option; otherwise, the mobile station shall send a *Mobile Station Reject Order* (ORDQ = '00000111') within T56m seconds.

1 3. *Service Request Message*: The mobile station shall send a *Mobile Station Reject*
 2 *Order* (ORDQ = '00000010') within T_{56m} seconds.

3 4. *Service Response Message*: The mobile station shall send a *Mobile Station Reject*
 4 *Order* (ORDQ = '00000010') within T_{56m} seconds.

5 5. *General Handoff Direction Message*: If the SCR_INCLUDED field is included in
 6 this message and is set to '1':

7 If the mobile station has not rejected this message, the mobile station shall
 8 remain in this subfunction until the action time specified in the message, and
 9 shall perform the following:

10 o The mobile station shall not perform the above procedures for the previous
 11 message. But the call assignments from the previous message (if any) shall
 12 take effect at the action time of the previous message.

13 o The mobile station shall perform the above procedures for this message (that
 14 is, begin to use the service configuration specified by the *General Handoff*
 15 *Direction Message*) at the action time of this message.

16 6. *Universal Handoff Direction Message*: If the SCR_INCLUDED field is included in
 17 this message and is set to '1':

18 If the mobile station has not rejected this message, the mobile station shall
 19 remain in this subfunction until the action time specified in the message, and
 20 shall perform the following:

21 o The mobile station shall not perform the above procedures for the previous
 22 message. But the call assignments from the previous message (if any) shall
 23 take effect at the action time of the previous message.

24 o The mobile station shall perform the above procedures for this message (that
 25 begin to use the service configuration and call assignments (if any) specified
 26 by the *Universal Handoff Direction Message* at the action time of this
 27 *message.*

- 28 • If the mobile station receives one of the following service option negotiation
 29 messages, the mobile station shall send a *Mobile Station Reject Order* (ORDQ =
 30 '00000010') within T_{56m} seconds:

- 31 1. *Service Option Request Order*
 32 2. *Service Option Response Order*
 33 3. *Service Option Control Order*

34 2.6.4.1.2.2.6 SO Negotiation Subfunction

35 The *SO Negotiation Subfunction* is only supported for mobile stations operating in Band
 36 Class 0.

37 Service option negotiation is not supported for P_REV_IN_USE_S greater than six.

1 Upon activation of the *SO Negotiation Subfunction*, the mobile station shall delete from the
2 current service configuration any service option connection which does not use primary
3 traffic on both the Forward and Reverse Traffic Channels and the Layer 3 shall terminate
4 the corresponding Call Control instances. The Call Control instance corresponding to the
5 service option connection which uses primary traffic, if any, shall be identified by NULL.

6 While the *SO Negotiation Subfunction* is active, the mobile station shall perform the
7 following:

- 8 • If the current service configuration includes a service option connection, the mobile
9 station shall process the received primary traffic bits in accordance with the
10 requirements for the service option associated with the service option connection;
11 otherwise, the mobile station shall discard the received primary traffic bits.
- 12 • If the current service configuration includes a service option connection, the mobile
13 station shall transmit primary traffic bits in accordance with the requirements for
14 the service option associated with the service option connection; otherwise, the
15 mobile station shall transmit null traffic on the Reverse Fundamental Channel, if
16 the Fundamental Channel is present or transmit power control bits on the Reverse
17 Pilot Channel, if only the Dedicated Control Channel is present.
- 18 • If the current service configuration includes a service option connection, the mobile
19 station may send a *Service Option Control Order* to invoke a service option specific
20 function in accordance with the requirements for the service option associated with
21 the service option connection.
- 22 • To initiate service option negotiation, the mobile station shall set SO_REQ_S to the
23 number of the requested service option and shall send a *Service Option Request
Order* containing the requested service option number.
- 25 • If SERV_NEG_S changes from disabled to enabled (see 2.6.6.2.5.1), the mobile station
26 shall set SO_REQ_S to NULL and shall activate the *Normal Service Subfunction*.
- 27 • If the mobile station receives a *Service Option Request Order*, it shall process the
28 order as follows:

- If the mobile station accepts the requested service option, the mobile station shall set SO_REQ_S to NULL and shall send a *Service Option Response Order* accepting the requested service option within T_{58m} seconds. The mobile station shall interpret the message action time of the *Service Option Request Order* in accordance with the requirements for the requested service option and the mobile station shall begin using the service configuration implied by the requested service option in accordance with those requirements. The implied service configuration shall include the default Forward and Reverse multiplex options and radio configurations associated with the requested service option, and shall include one service option connection for which the service option connection reference is 1, the service option is the requested service option, and the Forward and Reverse Traffic Channel types are both primary traffic. If a Call Control instance currently exists, the Layer 3 shall use this Call Control instance for a new service option connection; otherwise, The- the HLayer 3 shall instantiate a Call Control instance (as specified in 2.6.10) and; this Call Control instance shall be identified by both a connection reference with a value of 1 and a default identifier with a value of NULL.
- If the mobile station does not accept the requested service option and has an alternative service option to request, the mobile station shall set SO_REQ_S to the alternative service option number and shall send a *Service Option Request Order* requesting the alternative service option within T_{58m} seconds.
- If the mobile station does not accept the requested service option and does not have an alternative service option to request, the mobile station shall set SO_REQ_S to NULL and shall send a *Service Option Response Order* to reject the request within T_{58m} seconds. The mobile station shall continue to use the current service configuration.
- If the mobile station receives a *Service Option Response Order*, it shall process the order as follows:
 - If the service option number specified in the order is equal to SO_REQ_S, the mobile station shall set SO_REQ_S to NULL. The mobile station shall interpret the message action time of the *Service Option Response Order* in accordance with the requirements for the specified service option, and the mobile station shall begin using the service configuration implied by the specified service option in accordance with those requirements. The implied service configuration shall include the default Forward and Reverse multiplex options and radio configurations associated with the specified service option, and shall include one service option connection for which the service option connection reference is 1, the service option is the specified service option, and the Forward and Reverse Traffic Channel types are both primary traffic. If a Call Control instance currently exists, the Layer 3 shall use this Call Control instance for a new service option connection; otherwise, The- the HLayer 3 shall instantiate a Call Control instance (as specified in 2.6.10) and; this Call Control instance shall be identified by both a connection reference with a value of 1 and a default identifier with a value of NULL.

- If the order indicates a service option rejection, the mobile station shall set SO_REQ_S to NULL. The mobile station shall continue to use the current service configuration.
- If the order does not indicate a service option rejection and the service option specified in the order is not equal to SO_REQ_S, the mobile station shall set SO_REQ_S to NULL and shall send a *Mobile Station Reject Order* (ORDQ = '00000100') within T_{58m} seconds. The mobile station shall continue to use the current service configuration.
- If the mobile station receives a *Service Option Control Order*, it shall process the order as follows:
 - If the current service configuration includes a service option connection, the mobile station shall interpret the message action time of the *Service Option Control Order* in accordance with the requirements for the service option associated with the service option connection and the mobile station shall process the *Service Option Control Order* in accordance with those requirements;
 - otherwise, the mobile station shall send a *Mobile Station Reject Order* (ORDQ = '00000001') within T_{56m} seconds.
- If the mobile station receives one of the following service negotiation messages, the mobile station shall send a *Mobile Station Reject Order* (ORDQ = '00000010') within T_{56m} seconds:
 1. *Service Connect Message*
 2. *Service Option Control Message*
 3. *Service Request Message*
 4. *Service Response Message*

2.6.4.1.3 Ordering of Messages

The Layer 2 protocol does not guarantee delivery of messages in any order. If the mobile station requires that the base station receive a set of messages in a certain order, the mobile station shall send each message in assured mode requiring confirmation of delivery and shall wait for the confirmation of delivery of each message before transmitting the next message in the set.

2.6.4.1.4 Processing the In-Traffic System Parameters Message

The mobile station shall store the following parameters from the *In-Traffic System Parameters Message*:

- System identification (SID_S = SID_r)
- Network identification (NID_S = NID_r)
- Search window size for the Active Set and the Candidate Set (SRCH_WIN_A_S = SRCH_WIN_A_r)
- Search window size for the Neighbor Set (SRCH_WIN_N_S = SRCH_WIN_N_r)

- 1 • Search window size for the Remaining Set ($\text{SRCH_WIN}_S = \text{SRCH_WIN}_R$)
- 2 • Pilot detection threshold ($T_{\text{ADD}}_S = T_{\text{ADD}}_R$)
- 3 • Pilot drop threshold ($T_{\text{DROP}}_S = T_{\text{DROP}}_R$)
- 4 • Active Set versus Candidate Set comparison threshold ($T_{\text{COMP}}_S = T_{\text{COMP}}_R$)
- 5 • Drop timer value ($T_{\text{TDROP}}_S = T_{\text{TDROP}}_R$)
- 6 • Maximum age for retention of Neighbor Set members
($\text{NGBR_MAX_AGE}_S = \text{NGBR_MAX_AGE}_R$)
- 7 • Protocol revision level ($P_{\text{REV}}_S = P_{\text{REV}}_R$), and protocol revision level currently in
use ($P_{\text{REV_IN_USE}}_S = \min(P_{\text{REV}}_S, \text{MOB_P_REV}_p$ of the current band class))
- 8 • Slope of the handoff add/drop criterion ($\text{SOFT_SLOPE}_S = \text{SOFT_SLOPE}_R$)
- 9 • Intercept of the handoff add criterion ($\text{ADD_INTERCEPT}_S = \text{ADD_INTERCEPT}_R$)
- 10 • Intercept of the handoff drop criterion ($\text{DROP_INTERCEPT}_S = \text{DROP_INTERCEPT}_R$)
- 11 • If included, Reverse Supplemental Code Channel or Reverse Supplemental Channel
neighbor pilot strength measurement transmission threshold offset threshold
($T_{\text{MULCHAN}}_S = T_{\text{MULCHAN}}_R$)
- 12 • If included, Reverse Supplemental Code Channel beginning of transmission
preamble length ($\text{BEGIN_PREAMBLE}_S = \text{BEGIN_PREAMBLE}_R$)
- 13 • If included, Reverse Supplemental Code Channel discontinuous transmission
resumption preamble length ($\text{RESUME_PREAMBLE}_S = \text{RESUME_PREAMBLE}_R$)
- 14 • If included, Slotted Timer ($T_{\text{SLOTTED}}_S = T_{\text{SLOTTED}}_R$)
- 15 • If the mobile station supports packet data service options, the mobile station shall
store the packet data services zone identifier ($\text{PACKET_ZONE_ID}_S = \text{PACKET_ZONE_ID}_R$).
- 16 • If ENC_SUPPORTED_R is equal to '1', the mobile station shall store:
- 17 – Signaling encryption supported indicator ($\text{SIG_ENCRYPT_SUP}_S = \text{SIG_ENCRYPT_SUP}_R$)
- 18 – User information encryption supported indicator ($\text{UI_ENCRYPT_SUP}_S = \text{UI_ENCRYPT_SUP}_R$)
- 19 • Concurrent services supported indicator ($\text{CS_SUPPORTED}_S = \text{CS_SUPPORTED}_R$).

30 The mobile station shall determine its roaming status (see 2.6.5.3). The mobile station
31 should indicate to the user whether the mobile station is roaming.

32 2.6.4.1.5 Message Action Times

33 A Forward Traffic Channel message without a USE_TIME field or with a USE_TIME field set
34 to '0' has an implicit action time. A message that has its USE_TIME field set to '1' has an
35 explicit action time that is specified in the ACTION_TIME field of the message.

36 A message with an explicit action time is called a pending message.

Unless otherwise specified, a message having an implicit action time shall take effect no later than the first 80 ms boundary (relative to System Time) occurring at least 80 ms after the end of the frame containing the last bit of the message. A message with an explicit action time, except for a *Power Up Function Message*, shall take effect when System Time (in 80 ms units) modulo 64 becomes equal to the message's ACTION_TIME field. A *Power Up Function Message* shall take effect ACTION_TIME_FRAME frames after the time when System Time (in 80 ms units) modulo 64 becomes equal to the message's ACTION_TIME field. The difference in time between ACTION_TIME and the end of the frame containing the last bit of the message shall be at least 80 ms.

The mobile station shall support two pending messages at any given time, not including pending *Service Option Control Orders* or *Service Option Control Messages*. The number of pending *Service Option Control Orders* or *Service Option Control Messages* that the mobile station is required to support is specific to the service option (see the relevant service option description). In addition, the mobile station shall support one pending *Power Up Function Message*.

2.6.4.1.6 Long Code Transition Request Processing

The mobile station performs these procedures upon receiving a *Long Code Transition Request Order*.

If the *Long Code Transition Request Order* requests a transition to the private long code, and the mobile station is able to generate the private long code (see 2.3.12.3), and the mobile station accepts the request, the mobile station shall send a *Long Code Transition Response Order* (ORDQ = '00000011') within T_{56m} seconds. The mobile station shall use the private long code on both the Forward Traffic Channel and the Reverse Traffic Channel. The mobile station shall begin using the private long code at the explicit action time (see 2.6.4.1.5) specified in the message. At the action time of the message, the mobile station should indicate to the user that the voice privacy mode is active. If the *Long Code Transition Request Order* requests a private long code transition, and the mobile station is not able to generate the private long code or the mobile station does not accept the request, the mobile station shall send a *Long Code Transition Response Order* (ORDQ = '00000010') within T_{56m} seconds.

If the *Long Code Transition Request Order* requests a transition to the public long code and the mobile station accepts the request, the mobile station shall send a *Long Code Transition Response Order* (ORDQ = '00000010') within T_{56m} seconds. The mobile station shall use the public long code on both the Forward Traffic Channel and the Reverse Traffic Channel. The mobile station shall begin using the public long code at the explicit action time (see 2.6.4.1.5) specified in the message. At the action time of the message, the mobile station should indicate to the user that the voice privacy mode is inactive. If the *Long Code Transition Request Order* requests a public long code transition, and the mobile station does not accept the request, the mobile station shall send a *Long Code Transition Response Order* (ORDQ = '00000011') within T_{56m} seconds.

1 2.6.4.1.7 Power Up Function (PUF)

2 Figure 2.6.4.1.7-1 illustrates the general structure of a PUF attempt. A PUF pulse is the
3 interval during which the mobile station transmits at the specified power level while
4 executing the Power Up Function.

5 A PUF probe is one or more consecutive Traffic Channel frames. A PUF probe consists of
6 three parts: PUF setup, PUF pulse, and PUF recovery. PUF_SETUP_SIZE is the duration of
7 the PUF setup part, in power control groups. PUF_PULSE_SIZE is the duration of the PUF
8 pulse, in power control groups. The PUF recovery period occupies the remainder of the last
9 frame of the PUF probe.

10 A PUF attempt is a sequence of PUF probes sent by the mobile station in response to a
11 *Power Up Function Message*. A PUF attempt begins at an offset frame boundary within 80
12 ms of the ACTION_TIME specified in the *Power Up Function Message*. A PUF attempt can be
13 terminated in one of four ways:

- 14 • The mobile station receives a *Power Up Function Completion Message*.
- 15 • The mobile station has transmitted the maximum number of PUF probes specified in
16 the *Power Up Function Message*.
- 17 • The mobile station has transmitted the maximum number of probes allowed at its
18 maximum output power.
- 19 • The mobile station receives a new *Power Up Function Message*.

20

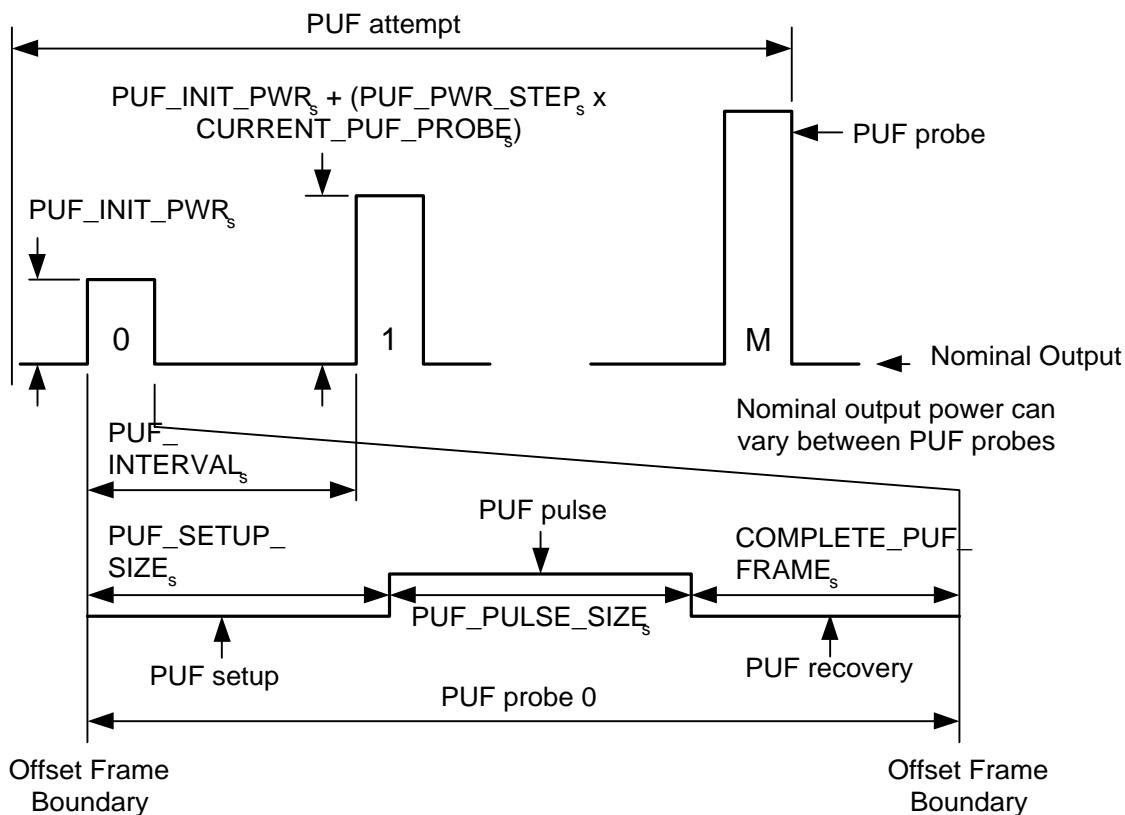


Figure 2.6.4.1.7-1. Structure of PUF Attempt

2.6.4.1.7.1 Processing the Power Up Function Message

The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to '00000110' (message requires a capability that is not supported by the mobile station) if any of the following conditions are detected:

- PUF_FREQ_INCL_r is set to '1' and PUF_BAND_CLASS_r is not supported by the mobile station.
- PUF_FREQ_INCL_r is set to '1' and the mobile station is unable to re-tune to the PUF Target Frequency during $(\text{PUF_SETUP_SIZE}_r + 1)$ power control groups.
- MOB_P_REV_p is not equal to five and the mobile station does not support the Power Up Function.

The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to '00001100' (invalid Frequency Assignment), if the Frequency Assignment specified in the message is the same as the Serving Frequency (PUF_FREQ_INCL_r is equal to '1', PUF_BAND_CLASS_r is equal to CDMABAND_S and PUF_CDMA_FREQ_r is equal to CDMACH_S).

If the mobile station is processing a PUF probe, the mobile station shall wait for the PUF probe to complete. It shall then terminate the current PUF attempt. The mobile station shall store the following parameters:

- Maximum number of PUF probes transmitted at full power level ($\text{MAX_PWR_PUF}_S = \text{MAX_PWR_PUF}_r + 1$)
- Total number of PUF probes ($\text{TOTAL_PUF_PROBES}_S = \text{TOTAL_PUF_PROBES}_r + 1$)
- PUF interval ($\text{PUF_INTERVAL}_S = \text{PUF_INTERVAL}_r$)
- Number of PUF setup power control groups ($\text{PUF_SETUP_SIZE}_S = \text{PUF_SETUP_SIZE}_r + 1$)
- Number of PUF pulse power control groups ($\text{PUF_PULSE_SIZE}_S = \text{PUF_PULSE_SIZE}_r + 1$)
- Power increase of initial PUF pulse ($\text{PUF_INIT_PWR}_S = \text{PUF_INIT_PWR}_r$)
- Power increase for each successive PUF pulse ($\text{PUF_PWR_STEP}_S = \text{PUF_PWR_STEP}_r$)
- Frequency included indicator ($\text{PUF_FREQ_INCL}_S = \text{PUF_FREQ_INCL}_r$)

If PUF_FREQ_INCL_S equals '1', the mobile station shall store the following:

- PUF probe Target Frequency CDMA Channel number ($\text{PUF_TF_CDMACH}_S = \text{PUF_CDMA_FREQ}_r$)
- PUF probe Target Frequency CDMA band class ($\text{PUF_TF_CDMABAND}_S = \text{PUF_BAND_CLASS}_r$)

The mobile station shall set $\text{CURRENT_PUF_PROBE}_S$ equal to 0.

The mobile station shall then begin the PUF attempt at the time specified in 2.6.4.1.7.2.

2.6.4.1.7.2 Power Up Function Procedures

The mobile station shall process the initial PUF probe beginning at the start of the frame which starts $\text{ACTION_TIME_FRAME}_r \times 20 \text{ ms} + \text{FRAME_OFFSET}_S \times 1.25 \text{ ms}$ after the System Time specified by ACTION_TIME_r . The mobile station shall process additional PUF probes beginning at intervals of PUF_INTERVAL_S frames from the beginning of the initial PUF probe.

The mobile station shall transmit the PUF probes as described in 2.6.4.1.7.2.1 and 2.6.4.1.7.2.2.

2.6.4.1.7.2.1 PUF Probe On Serving Frequency

The mobile station shall process each PUF probe as follows:

- The mobile station shall use closed loop power control procedures as specified in 2.1.2.3.2 of [2].
- The mobile station shall use the gated output procedures specified in 2.1.2.2.4 and 2.1.3.1.10.3 of [2].

- 1 • The mobile station shall control its mean output power as specified in 2.1.2.3.1 of
2 [2].
- 3 • The mobile station shall monitor its output power during the PUF pulse, and should
4 monitor its output power at least once during each power control group of the PUF
5 pulse. If the mobile station detects that the transmit power level specified in [2] is
6 equal to or greater than the maximum power output of the mobile station at any
7 time during a PUF pulse, the mobile station shall decrement MAX_PWR_PUF_S by one
8 for that PUF pulse.
- 9 • The mobile station shall transmit the traffic channel preamble for the duration of
10 the PUF probe on the Reverse Fundamental **Code**-Channel.

11 After the processing of each PUF probe, the mobile station shall increment
12 CURRENT_PUF_PROBE_S by 1. If MAX_PWR_PUF_S is equal to 0, the mobile station shall
13 terminate the PUF attempt. If CURRENT_PUF_PROBE_S equal to TOTAL_PUF_PROBE_S, the
14 mobile station shall terminate the PUF attempt.

15 2.6.4.1.7.2.2 PUF Probe On PUF Target Frequency

16 The mobile station shall process each PUF probe as follows:

- 17 • The mobile station shall use closed loop power control procedures as specified in
18 2.1.2.3.2 of [2].
- 19 • The mobile station shall use the gated output procedures specified in 2.1.3.1.10.3 of
20 [2].
- 21 • The mobile station shall control its mean output power as specified in 2.1.2.3.1 of
22 [2].
- 23 • The mobile station shall store the following Serving Frequency parameters from its
24 current configuration:
 - 25 – CDMA Band Class (PUF_SF_CDMABAND_S = CDMABAND_S)
 - 26 – Frequency assignment (PUF_SF_CDMACH_S = CDMACH_S)
- 27 • The mobile station shall monitor its output power during the PUF pulse, and should
28 monitor its output power at least once during each power control group of PUF
29 pulse. If the mobile station detects that the transmit power level specified in
30 2.1.2.3.1 of [2] is equal to or greater than the maximum power output of the mobile
31 station at any time during a PUF pulse, the mobile station shall decrement the
32 MAX_PWR_PUF_S by one for that PUF pulse.
- 33 • At the beginning of the PUF probe, the mobile station shall disable its transmitter,
34 stop processing the Forward Supplemental Code Channel (if any), or the Forward
35 Supplemental Channel (if any), disable all corrections to the mobile station time
36 reference (see 2.1.5 of [2]), tune to the CDMA channel specified by
37 PUF_TF_CDMACH_S, and PUF_TF_CDMABAND_S and re-enable its transmitter.
- 38 • The mobile station shall transmit the traffic channel preamble on the Reverse
39 Fundamental **Code**-Channel during the PUF pulse at PUF_TX_PWR_S.

- 1 • The mobile station should disable its transmitter immediately after the end of the
2 PUF pulse, and shall disable its transmitter before the end of the first power control
3 group after the PUF pulse. It shall then tune to its assigned CDMA channel as given
4 by CDMACH_S and CDMABAND_S.
- 5 • If the interval between the time that the mobile station tunes to the PUF Target
6 Frequency and the time that it re-tunes to the Serving Frequency is equal to or
7 greater than ($N_{2m} \times 0.02$) seconds, the mobile station shall wait to receive a period
8 of ($N_{3m} \times 20$) ms with sufficient signal quality (e.g. good frames) on the physical
9 channel corresponding to FPC_PRI_CHAN_S.
- 10 • The mobile station shall then re-enable its transmitter and re-enable any
11 adjustments to the mobile station time reference.
- 12 • If the Forward Supplemental Code Channel assignment has not expired while the
13 mobile station has tuned to the PUF Target Frequency, then the mobile station shall
14 resume processing the Forward Supplemental Code Channels after re-tuning to the
15 Serving Frequency.
- 16 • If the Forward Supplemental Channel assignment has not expired while the mobile
17 station has tuned to the PUF Target Frequency, then the mobile station shall
18 resume processing the Forward Supplemental Channels after re-tuning to the
19 Serving Frequency.
- 20 • If the Reverse Supplemental Code Channel assignment has not expired while the mobile
21 station has tuned to the PUF Target Frequency, then the mobile station may
22 resume transmitting the Reverse Supplemental Code Channels after re-tuning to the
23 Serving Frequency.
- 24 • If the Reverse Supplemental Channel assignment has not expired while the mobile
25 station has tuned to the PUF Target Frequency, then the mobile station may resume
26 transmitting the Reverse Supplemental Code Channels after re-tuning to the Serving
27 Frequency.

28 After the processing of each PUF probe, the mobile station shall increment
29 CURRENT_PUF_PROBE_S by one. If MAX_PWR_PUF_S is equal to 0, the mobile station shall
30 terminate the PUF attempt. If CURRENT_PUF_PROBE_S is equal to TOTAL_PUF_PROBE_S,
31 the mobile station shall terminate the PUF attempt.

32 2.6.4.1.7.3 Processing the Power Up Function Completion Message

33 The mobile station shall terminate any PUF attempt no later than the completion of the
34 current probe in progress and shall discard any pending *Power Up Function Message*. If
35 LOC_IND_R is equal to '1', the mobile station may store the following parameters:

- 36 • Mobile Station Latitude (MS_LAT_S = MS_LAT_R)
- 37 • Mobile Station Longitude (MS_LONG_S = MS_LONG_R)
- 38 • Time stamp (MS_LOC_TSTAMP_S = MS_LOC_TSTAMP_R)

1 2.6.4.1.8 Forward Traffic Channel Supervision

2 When in the *Mobile Station Control on the Traffic Channel State*, the mobile station shall
 3 continuously monitor the Forward Channel, except:

- 4 • During a PUF probe in which it transmits on a PUF target frequency (see 2.6.4.1.7),
- 5 • During a search of pilots on a CDMA Candidate Frequency (see 2.6.6.2.8.3),
- 6 • During a search of analog frequencies (see 2.6.6.2.10).

7 The mobile station shall monitor the physical channel corresponding to FPC_PRI_CHAN_S.

8 If the mobile station receives a period of ($N_{2m} \times 20$) ms with insufficient signal quality (e.g.
 9 bad frames) on the physical channel corresponding to FPC_PRI_CHAN_S, it shall disable its
 10 transmitter. Thereafter, if the mobile station receives a period of ($N_{3m} \times 20$) ms with
 11 sufficient signal quality (e.g. good frames) on the physical channel corresponding to
 12 FPC_PRI_CHAN_S, then the mobile station should re-enable its transmitter.

13 The mobile station shall establish a Forward Traffic Channel fade timer. The timer shall be
 14 enabled when the mobile station first enables its transmitter when in the *Traffic Channel*
 15 *Initialization Substate* of the *Mobile Station Control on the Traffic Channel State*. The fade
 16 timer shall be reset for T_{5m} seconds whenever the mobile station receives a period of (N_{3m}
 17 $\times 20$) ms with sufficient signal quality (e.g. good frames) on the physical channel
 18 corresponding to FPC_PRI_CHAN_S. The mobile station shall disable the fade timer when it
 19 tunes to a PUF target frequency, and shall re-enable the fade timer at the end of the PUF
 20 probe. If the timer expires, the mobile station shall disable its transmitter and declare a
 21 loss of the Forward Traffic Channel.

22 The mobile station also enables, disables, and resets the fade timer when it performs a hard
 23 handoff or a periodic search, as described in 2.6.6.2.8 and 2.6.6.2.10.

24 2.6.4.1.9 Processing the Extended Release Message and the Extended Release Mini Message

- 25 • Upon receiving the *Extended Release Message* or the *Extended Release Mini*
 26 *Message*, the mobile station shall process the message as follows:
 - 27 – If the mobile station determines that the configuration specified by CH_IND_r is
 28 not valid, the mobile station shall send a *Mobile Station Reject Order* with the
 29 ORDQ field set to '00000111' (message can not be handled by the current mobile
 30 station configuration) and the mobile station shall not perform the remaining
 31 procedures in this section.
 - 32 – If the physical channels indicated by the two least significant bits of CH_IND_r
 33 includes all the physical channels (FCH, DCCH, or both) currently being
 34 processed by the mobile station, the ILayer 3 shall send a "release indication" to
 35 all Call Control instances and shall perform the following:
 - 36 + Enter the *Release Substate* with a base station extended release indication if
 37 the message is the *Extended Release Message*.
 - 38 + Enter the *Release Substate* with a base station extended release mini
 39 message indication if the message is the *Extended Release Mini Message*.

- 1 – Otherwise, the mobile station shall perform the following:
- 2 + If the received message is the *Extended Release Message*, the mobile station
 3 shall send an *Extended Release Response Message* to the base station. If the
 4 received message is the *Extended Release Mini Message*, the mobile station
 5 shall send an *Extended Release Response Mini Message* to the base station.
- 6 + The mobile station shall update CH_IND_S as follows: If the least significant
 7 bit of CH_IND_r equals ‘1’, the mobile station shall set CH_IND_S = ‘10’.
 8 otherwise ~~If the second most least~~ significant bit of CH_IND_r equals ‘01’,
 9 the mobile station shall set CH_IND_S = ‘01’.
- 10 + If CH_IND_r is equal to ‘001’ or ‘101’, the mobile station shall set
 11 FPC_PRI_CHAN_S to ‘1’ at the action time of the message.
- 12 + If CH_IND_r is equal to ‘010’, the mobile station shall set FPC_PRI_CHAN_S to
 13 ‘0’ at the action time of the message.
- 14 + If the least significant bit of CH_IND_r equals ‘1’, then the mobile station shall
 15 stop transmitting on R-FCH and stop processing F-FCH at the action time
 16 specified by the message.
- 17 + If the second most significant bit of CH_IND_r equals ‘1’, then the mobile
 18 station shall stop transmitting on R-DCCH and stop processing F-DCCH at
 19 the action time specified by the message.
- 20 + If GATING_RATE_INCL_r equals ‘1’, the mobile station shall set
 21 PILOT_GATING_RATE_S = PILOT_GATING_RATE_r at the action time of the
 22 message.
- 23 + If the most significant bit of CH_IND_r equals ‘1’, the mobile station shall set
 24 PILOT_GATING_USE_RATE to ‘1’. The mobile station shall start the reverse
 25 pilot gating at PILOT_GATING_RATE_S at the action time of the message.
 26 Furthermore, if the least significant bit of CH_IND_r equals ‘1’ (that is, the
 27 Fundamental Channel is being released), the mobile station shall store the
 28 configuration used for the Fundamental Channel. The mobile station shall
 29 cancel the forward and reverse supplemental channel assignment, if any.

30 2.6.4.1.10 Processing the Resource Allocation Message and Resource Allocation Mini
 31 Message

32 The mobile station shall process the *Resource Allocation Message* and the *Resource
 33 Allocation Mini Message* as follows:

- 34 • The mobile station shall set FPC_PRI_CHAN_S = FPC_PRI_CHAN_r at the action time of
 35 the message.

- If the Fundamental Channel was previously established prior to transitioning to the *Control Hold Mode*, the mobile station shall start processing F-FCH and start transmitting on R-FCH at the action time of the message. The mobile station shall establish the Fundamental Channel with the same configuration as previously used, and shall set CH_IND_s to '11'.
- The mobile station shall set PILOT_GATING_USE_RATE to '0' and shall start the continuous reverse pilot at the action time of the message.

2.6.4.1.11 Reserved

2.6.4.1.12 Processing the Service Configuration Record

The mobile station shall update the Service Configuration information record currently in use as follows:

- The mobile station shall store the forward Fundamental Channel and Dedicated Control Channel multiplex option [FOR_MUX_OPTION_s = FOR_MUX_OPTION_r].
- The mobile station shall store the reverse Fundamental Channel and Dedicated Control Channel multiplex option [REV_MUX_OPTION_s = REV_MUX_OPTION_r].
- The mobile station shall store the set of number of bits per frame of the forward Fundamental Channel and Dedicated Control Channel traffic-channel [FOR_NUM_BITS_s = FOR_NUM_BITS_r].
- The mobile station shall store the set of number of bits per frame of the reverse Fundamental Channel and Dedicated Control Channel traffic-channel [REV_NUM_BITS_s = REV_NUM_BITS_r].
- If a service option connection has been omitted from the service option connection records, the Layer 3 shall terminate the call control instance (currently existing or pending instantiation) identified by the connection reference corresponding to the omitted service option connection.
- If this is the first Service Configuration Record received from the base station in a *Service Connect Message*, *General Handoff Direction Message*, or *Universal Handoff Direction Message* and accepted by the mobile station since entering the *Traffic Channel substate*, the mobile station shall also identify the Call Control instance currently identified by NULL by the connection reference assigned to the first service option connection, CON_REF_r; otherwise, the mobile station shall identify the Call Control instance corresponding to the first service option connection listed in this Service Configuration information record by the NULL identifier.
- The mobile station shall delete all instances of current service option connection records. For each of the NUM_CON_REC_r occurrences of the service option connection record (SO_CON_REC[i]), the mobile station shall perform the following:
 - The mobile station shall store the service option connection reference (SO_CON_REC_s[i].CON_REF = CON_REF_r).

- 1 – The mobile station shall store the service option
2 (SO_CON_REC_S[i].SERVICE_OPTION = SERVICE_OPTION_r).
- 3 – The mobile station shall store the forward traffic channel traffic type
4 (SO_CON_REC_S[i].FOR_TRAFFIC = FOR_TRAFFIC_r).
- 5 – The mobile station shall store the reverse traffic channel traffic type
6 (SO_CON_REC_S[i].REV_TRAFFIC = REV_TRAFFIC_r).
- 7 – The mobile station shall store the encryption mode indicator for user information
8 privacy (SO_CON_REC_S[i].UI_ENCRYPT_MODE = UI_ENCRYPT_MODE_r).
- 9 – The mobile station shall store the service reference identifier
10 (SO_CON_REC_S[i].SR_ID = SR_ID_r).
- 11 – If RLP_INFO_INCL_r equals ‘1’, the mobile station shall store the Radio Link
12 Protocol block of bits (SO_CON_REC_S[i].RLP_BLOB = RLP_BLOB_r).
- 13 – If QOS_PARMS_INCL_r equals ‘1’, the mobile station shall store the QoS
14 parameters block (SO_CON_REC_S[i].QOS_PARMS = QOS_PARMS_r).
- 15 • If FCH_CC_INCL_r equals ‘1’, the mobile station shall do the following:
 - 16 – The mobile station shall store the indicator for 5ms frames on Fundamental
17 Channel as follows: if FCH_FRAME_SIZE_r equals ‘1’, the mobile station shall set
18 FCH_5MS_FRAMES_S = ‘1’; otherwise, it is set to ‘0’.
 - 19 – The mobile station shall store the Forward Fundamental Channel Radio
20 Configuration (FOR_FCH_RC_S = FOR_FCH_RC_r).
 - 21 – The mobile station shall store the Reverse Fundamental Channel Radio
22 Configuration (REV_FCH_RC_S = REV_FCH_RC_r).
- 23 • If DCCH_CC_INCL_r equals ‘1’, the mobile station shall do the following:
 - 24 – The mobile station shall store the indicator for 5ms frames on Dedicated Control
25 Channel as follows: If DCCH_FRAME_SIZE_r equals ‘10’ or ‘11’, the mobile station
26 shall set DCCH_5MS_FRAMES_S = ‘1’; otherwise, it is set to ‘0’.
 - 27 – The mobile station shall store the Forward Dedicated Control Channel Radio
28 Configuration (FOR_DCCH_RC_S = FOR_DCCH_RC_r).
 - 29 – The mobile station shall store the Reverse Dedicated Control Channel Radio
30 Configuration (REV_DCCH_RC_S = REV_DCCH_RC_r).
- 31 • If FOR_SCH_CC_INCL_r equals ‘1’, the mobile station shall store the NUM_FOR_SCH_r
32 occurrences of the Forward Supplemental Channel channel configuration records as
33 follows:
 - 34 – The mobile station shall store the Forward Supplemental Channel Identification
35 (FOR_SCH_ID[FOR_SCH_ID_r]_S = FOR_SCH_ID_r).

- The mobile station shall store the Forward Supplemental Channel Multiplex Option ($\text{FOR_SCH_MUX}[\text{FOR_SCH_ID}_r]_s = \text{FOR_SCH_MUX}_r$).
 - The mobile station shall store the Forward Supplemental Channel Radio Configuration ($\text{FOR_SCH_RC}[\text{FOR_SCH_ID}_r]_s = \text{SCH_RC}_r$).
 - The mobile station shall store the Forward Supplemental Channel Coding Type ($\text{FOR_SCH_CODING}[\text{FOR_SCH_ID}_r]_s = \text{CODING}_r$).
 - If FRAME_40_USED_r and FRAME_80_USED_r are both equal to '0', the mobile station shall set $\text{FOR_SCH_FRAME_LENGTH}_s[\text{FOR_SCH_ID}_r]$ to '00' (i.e., 20 ms frame length).
 - If FRAME_40_USED_r is equal to '1', the mobile station shall set $\text{FOR_SCH_FRAME_LENGTH}_s[\text{FOR_SCH_ID}_r]$ to '01' (i.e., 40 ms frame length).
 - If FRAME_80_USED_r is equal to '1', the mobile station shall set $\text{FOR_SCH_FRAME_LENGTH}_s[\text{FOR_SCH_ID}_r]$ to '10' (i.e., 80 ms frame length).
 - $\text{F_MAX_RATE_IDX}_s[\text{FOR_SCH_ID}_r] = \text{MAX_RATE}_r$.
- If REV_SCH_CC_INCL_r equals '1', the mobile station shall store the NUM_REV_SCH_r occurrences of the Reverse Supplemental Channel channel configuration records as follows:
 - The mobile station shall store the Reverse Supplemental Channel Identification ($\text{REV_SCH_ID}[\text{REV_SCH_ID}_r]_s = \text{REV_SCH_ID}_r$).
 - The mobile station shall store the Reverse Supplemental Channel Multiplex Option ($\text{REV_SCH_MUX}[\text{REV_SCH_ID}_r]_s = \text{REV_SCH_MUX}_r$).
 - The mobile station shall store the Reverse Supplemental Channel Radio Configuration ($\text{REV_SCH_RC}[\text{REV_SCH_ID}_r]_s = \text{SCH_RC}_r$).
 - The mobile station shall store the Reverse Supplemental Channel Coding Type ($\text{REV_SCH_CODING}[\text{REV_SCH_ID}_r]_s = \text{CODING}_r$).
 - If FRAME_40_USED_r and FRAME_80_USED_r are both equal to '0', the mobile station shall set $\text{REV_SCH_FRAME_LENGTH}_s[\text{REV_SCH_ID}_r]$ to '00' (i.e., 20 ms frame length).
 - If FRAME_40_USED_r is equal to '1', the mobile station shall set $\text{REV_SCH_FRAME_LENGTH}_s[\text{REV_SCH_ID}_r]$ to '01' (i.e., 40 ms frame length).
 - If FRAME_80_USED_r is equal to '1', the mobile station shall set $\text{REV_SCH_FRAME_LENGTH}_s[\text{REV_SCH_ID}_r]$ to '10' (i.e., 80 ms frame length).
 - $\text{R_MAX_RATE_IDX}_s[\text{REV_SCH_ID}_r] = \text{MAX_RATE}_r$.

34 2.6.4.1.13 Processing the Non-Negotiable Service Configuration Record

35 The mobile station shall update the Non-Negotiable Service Configuration information
 36 record currently in use as follows:

- If FPC_INCL_r equals '1', the mobile station shall do the following:

- The mobile station shall store the Power Control Subchannel indicator ($FPC_PRI_CHAN_s = FPC_PRI_CHAN_r$).
- The mobile station shall store the forward power control operation mode ($FPC_MODE_NO_SCH_s = FPC_MODE_r$).
- The mobile station shall set $FPC_MODE_s = FPC_MODE_NO_SCH_s$ if there is no forward Supplemental Channel assignment in progress (see 2.6.6.2.5.1.1).
- If $FPC_OLPC_FCH_INCL_r$ equals ‘1’, the mobile station shall do the following:
 - + The mobile station shall store the Fundamental Channel target Frame Error Rate ($FPC_FCH_FER_s = FPC_FCH_FER_r$).
 - + The mobile station shall store the minimum Fundamental Channel Outer Loop E_b/N_t setpoint ($FPC_FCH_MIN_SETPT_s = FPC_FCH_MIN_SETPT_r$).
 - + The mobile station shall store the maximum Fundamental Channel Outer Loop E_b/N_t setpoint ($FPC_FCH_MAX_SETPT_s = FPC_FCH_MAX_SETPT_r$).
- If $FPC_OLPC_DCCH_INCL_r$ equals ‘1’, the mobile station shall do the following:
 - + The mobile station shall store the Dedicated Control Channel target Frame Error Rate ($FPC_DCCH_FER_s = FPC_DCCH_FER_r$).
 - + The mobile station shall store the minimum Dedicated Control Channel Outer Loop E_b/N_t setpoint ($FPC_DCCH_MIN_SETPT_s = FPC_DCCH_MIN_SETPT_r$).
 - + The mobile station shall store the maximum Dedicated Control Channel Outer Loop E_b/N_t setpoint ($FPC_DCCH_MAX_SETPT_s = FPC_DCCH_MAX_SETPT_r$).
- If $GATING_RATE_INCL_r$ equals ‘1’, the mobile station shall store the Reverse Pilot Channel gating rate ($PILOT_GATING_RATE_s = PILOT_GATING_RATE_r$).
- If $FOR_SCH_INCL_r$ equals ‘1’, the mobile station shall store the $NUM_FOR_SCH_r$ occurrences of the Forward Supplemental Channel information as follows:
 - The mobile station shall store the Forward Supplemental Channel Multiframe Offset ($FOR_SCH_FRAME_OFFSET[FOR_SCH_ID_r]_s = FOR_SCH_FRAME_OFFSET_r$).
- If $REV_SCH_CC_INCL_r$ equals ‘1’, the mobile station shall store the $NUM_REV_SCH_r$ occurrences of the Reverse Supplemental Channel information as follows:
 - The mobile station shall store the Reverse Supplemental Channel Multiframe Offset ($REV_SCH_FRAME_OFFSET[REV_SCH_ID_r]_s = REV_SCH_FRAME_OFFSET_r$).
- The mobile station shall determine the Logical-to-Physical Mapping to be used as follows:

- If LPM_IND_r equals '00' and P_REV_IN_USE_s is greater than six, the mobile station shall reset the Logical-to-Physical Mapping to their default values as specified in Table 2.6.4.2-1 but with the following modification for requirement 1 stated in Table 2.6.4.2-1:
 - + The mobile station shall set the SR_ID field to the value specified in the Service Configuration information record.
- If LPM_IND_r equals '00' and P_REV_IN_USE_s is equal to or less than six, the mobile station shall reset the Logical-to-Physical Mapping to their default values as follows:
 - + Default number of Logical-to-Physical Mapping entries (NUM_LPM_ENTRIES_s = '0100').
 - + Default Table(0) Logical-to-Physical Mapping service reference identifier (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[0].SR_ID_s = '000').
 - + Default Table(0) Logical-to-Physical Mapping logical resource identifier (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[0].LOGICAL_RESOURCE_s = '0001').
 - + Default Table(0) Logical-to-Physical Mapping physical resource identifier:
 - o If CH_IND_s is equal to '01' or '11', the mobile station shall set LOGICAL_TO_PHYSICAL_MAPPING_TABLE[0].PHYSICAL_RESOURCE_s to '0000'.
 - o If CH_IND_s is equal to '10', the mobile station shall set LOGICAL_TO_PHYSICAL_MAPPING_TABLE[0].PHYSICAL_RESOURCE_s to '0001'.
 - + Default Table(0) Logical-to-Physical Mapping forward mapping indicator (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[0].FORWARD_FLAG_s = '1').
 - + Default Table(0) Logical-to-Physical Mapping reverse mapping indicator (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[0].REVERSE_FLAG_s = '1').
 - + Default Table(0) Logical-to-Physical Mapping priority (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[0].PRIORITY_s = '0000').
 - + Default Table(1) Logical-to-Physical Mapping service reference identifier (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[1].SR_ID_s = '001').
 - + Default Table(1) Logical-to-Physical Mapping logical resource identifier (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[1].LOGICAL_RESOURCE_s = '0000').
 - + Default Table(1) Logical-to-Physical Mapping physical resource identifier:
 - o If CH_IND_s is equal to '01' or '11', the mobile station shall set LOGICAL_TO_PHYSICAL_MAPPING_TABLE[1].PHYSICAL_RESOURCE_s to '0000'.

- 1 o If CH_IND_S is equal to '10', the mobile station shall set
 2 LOGICAL_TO_PHYSICAL_MAPPING_TABLE[1].PHYSICAL_RESOURCE
 3 s to '0001'.
- 4 + Default Table(1) Logical-to-Physical Mapping forward mapping indicator
 5 (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[1].FORWARD_FLAG_S = '1').
- 6 + Default Table(1) Logical-to-Physical Mapping reverse mapping indicator
 7 (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[1].REVERSE_FLAG_S = '1').
- 8 + Default Table(1) Logical-to-Physical Mapping priority
 9 (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[1].PRIORITY_S = '0000').
- 10 + Default Table(2) Logical-to-Physical Mapping service reference identifier
 11 (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[2].SR_ID_S = '001').
- 12 + Default Table(2) Logical-to-Physical Mapping logical resource identifier
 13 (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[2].LOGICAL_RESOURCE_S =
 14 '0000').
- 15 + Default Table(2) Logical-to-Physical Mapping physical resource identifier
 16 (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[2].PHYSICAL_RESOURCE_S to
 17 '0010').
- 18 + Default Table(2) Logical-to-Physical Mapping forward mapping indicator
 19 (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[2].FORWARD_FLAG_S = '1').
- 20 + Default Table(2) Logical-to-Physical Mapping reverse mapping indicator
 21 (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[2].REVERSE_FLAG_S = '1').
- 22 + Default Table(2) Logical-to-Physical Mapping priority
 23 (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[2].PRIORITY_S = '0000').
- 24 + Default Table(3) Logical-to-Physical Mapping service reference identifier
 25 (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[3].SR_ID_S = '001').
- 26 + Default Table(3) Logical-to-Physical Mapping logical resource identifier
 27 (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[3].LOGICAL_RESOURCE_S =
 28 '0000').
- 29 + Default Table(3) Logical-to-Physical Mapping physical resource identifier
 30 (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[3].PHYSICAL_RESOURCE_S to
 31 '0011').
- 32 + Default Table(3) Logical-to-Physical Mapping forward mapping indicator
 33 (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[3].FORWARD_FLAG_S = '1').
- 34 + Default Table(3) Logical-to-Physical Mapping reverse mapping indicator
 35 (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[3].REVERSE_FLAG_S = '1').
- 36 + Default Table(3) Logical-to-Physical Mapping priority
 37 (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[3].PRIORITY_S = '0000').

- If LPM_IND_r equals '01', the mobile station shall use the Logical-to-Physical Mapping included in this Non-Negotiable Service Configuration Record. The mobile station shall do the following: The mobile station shall delete the Logical-to-Physical Mapping currently in use. The mobile station shall store the number of Logical-to-Physical Mapping entries (NUM_LPM_ENTRIES_s = NUM_LPM_ENTRIES_r). For each ith record of the NUM_LPM_ENTRIES_r Logical-to-Physical Mapping records included in the received Non-Negotiable Service Configuration Record:
 - + The mobile station shall store the Logical-to-Physical Mapping service reference identifier (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[i].SR_ID_s = SR_ID_r).
 - + The mobile station shall store the Logical-to-Physical Mapping logical resource identifier (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[i].LOGICAL_RESOURCE_s = LOGICAL_RESOURCE_r).
 - + The mobile station shall store the Logical-to-Physical Mapping Physical Channel (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[i].PHYSICAL_RESOURCE_s = PHYSICAL_RESOURCE_r).
 - + The mobile station shall store the Logical-to-Physical Mapping forward mapping indicator (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[i].FORWARD_FLAG_s = FORWARD_FLAG_r).
 - + The mobile station shall store the Logical-to-Physical Mapping reverse mapping indicator (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[i].REVERSE_FLAG_s = REVERSE_FLAG_r).
 - + The mobile station shall store the Logical-to-Physical Mapping priority (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[i].PRIORITY_s = PRIORITY_r).
- If LPM_IND_r equals '10', the mobile station shall use the Logical-to-Physical Mapping currently in use.
- For each of the NUM_REC_r occurrences of the service-specific records included in the Non-negotiable Service Configuration Record, the mobile station shall perform the following:
 - The mobile station shall store the Short Data Burst service option number omitted indicator (SDB_SO OMIT_s [SR_ID_r] = SDB_SO OMIT_r).
 - The mobile station shall store the following:
 - USE_FLEX_NUM_BITS_s = USE_FLEX_NUM_BITS_r
 - USE_VAR_RATE_s = USE_VAR_RATE_r

- 1 - If USE_VAR_RATE_r is equal to '1', then the mobile station shall store the
 2 following:
 3 + R_INC_RATE_ALLOWED_s = R_INC_RATE_ALLOWED_r
 4 + F_INC_RATE_ALLOWED_s = F_INC_RATE_ALLOWED_r
- 5 • If NUM_BITS_TABLES_INCL_r is included and is equal to '1', the mobile station shall
 6 store NUM_BITS_TABLES_COUNT+1 instances of the Flexible Rate Table
 7 (NUM_RECS triplets of (NUM_BITS_IDX, NUM_BITS, CRC_LEN_IDX) corresponding
 8 to each NUM_BITS_TABLE_ID) as follows:
 9 - For each of the NUM_RECS occurrences of the three field record consisting of
 10 NUM_BITS_IDX, NUM_BITS, and CRC_LEN_IDX the mobile station shall store
 11 the following
 12 + NUM_BITS_s[NUM_BITS_TABLE_ID_r][NUM_BITS_IDX_r] = NUM_BITS_r;
 13 + CRC_LEN_IDX_s[NUM_BITS_TABLE_ID_r][NUM_BITS_IDX_r] = CRC_LEN_IDX_r;
- 14 **Otherwise, the mobile station shall use the previously stored values for the*
 15 *NUM_BITS_s and CRC_LEN_IDX_s.*
- 16 • If USE_OLD_FLEX_MAPPING_r is included and equal to '0', the mobile station shall
 17 store the following:
 18 - FFCH_NBIT_TABLE_ID_s = FFCH_NBIT_TABLE_ID_r.
 19 - RFCH_NBIT_TABLE_ID_s = RFCH_NBIT_TABLE_ID_r.
 20 - FSCH_NBIT_TABLE_ID_s[1] = FSCH0_NBIT_TABLE_ID_r.
 21 - FSCH_NBIT_TABLE_ID_s[2] = FSCH1_NBIT_TABLE_ID_r.
 22 - RSCH_NBIT_TABLE_ID_s[1] = RSCH0_NBIT_TABLE_ID_r.
 23 - RSCH_NBIT_TABLE_ID_s[2] = RSCH1_NBIT_TABLE_ID_r.
 24 - FDCCH_NBIT_TABLE_ID_s = FDCCH_NBIT_TABLE_ID_r.
 25 - If FDCCH_NBIT_TABLE_ID_s is not equal to '0000', then the mobile station shall
 26 store FDCCH_NBITS_IDX_s = FDCCH_NBITS_IDX_r.
 27 - RDCCH_NBIT_TABLE_ID_s = RDCCH_NBIT_TABLE_ID_r.
 28 - If RDCCH_NBIT_TABLE_ID_s is not equal to '0000', then the mobile station shall
 29 store RDCCH_NBITS_IDX_s = RDCCH_NBITS_IDX_r.
- 30 • Otherwise, the mobile station shall use the previously stored values for the above ~~six~~
 31 variables.
 32 • If USE_FLEX_NUM_BITS_r is equal to '0', the mobile station shall store the following:
 33 - FFCH_NBIT_TABLE_ID_s = '0000'.
 34 - RFCH_NBIT_TABLE_ID_s = '0000'.
 35 - FSCH_NBIT_TABLE_ID_s[1] = '0000'.

- 1 - FSCH_NBIT_TABLE_ID_S[2] = '0000'.
 2 - RSCH_NBIT_TABLE_ID_S[1] = '0000'.
 3 - RSCH_NBIT_TABLE_ID_S[2] = '0000'.
 4 - FDCCH_NBIT_TABLE_ID_S = '0000'.
 5 - FDCCH_NBITS_IDX_S = '0000'.
 6 - RDCCH_NBIT_TABLE_ID_S = '0000'.
 7 - FDCCH_NBITS_IDX_S = '0000'.
 8 • If VAR_TABLES_INCL_r is included and is equal to '1', the mobile station shall store
 9 VAR_RATE_TABLES_COUNT+1 instances of the Variable Rate Mask Table
 10 (NUM_RECS pairs of (NUM_BITS_IDX, MASK) corresponding to each
 11 VAR_RATE_TABLE_ID) as follows:
 12 - For each of the NUM_RECS + 1 occurrences of the two-field record consisting of
 13 NUM_BITS_IDX and MASK the mobile station shall store the following:
 14 + MASK_S[VAR_RATE_TABLE_ID_r][NUM_BITS_IDX_r] = MASK_r;
 15 - If FSCH_VAR_TABLE_ID_S[1] is not equal to '000', then the mobile station shall
 16 store the following:
 17 + For row=1, ..., 15
 18 o For i=1, ..., row,
 19 ◊ If the *i*th bit position in MASK_S[FSCH_VAR_TABLE_ID_S[1]][row] is equal
 20 to '1', then the mobile station shall set
 21 VAR_FSCH_RATE_OFFSET_S[1][row][i] to i,
 22 ◊ otherwise, the mobile shall set VAR_FSCH_RATE_OFFSET_S[1][row][i]
 23 to '0'.
 24 - If FSCH_VAR_TABLE_ID_S[2] is not equal to '000', then the mobile station shall
 25 store the following:
 26 + For row=1, ..., 15
 27 o For i=1, ..., row,
 28 ◊ If the *i*th bit position in MASK_S[FSCH_VAR_TABLE_ID_S[2]][row] is equal
 29 to '1', then the mobile station shall set
 30 VAR_FSCH_RATE_OFFSET_S[2][row][i] to i,
 31 ◊ otherwise, the mobile shall set VAR_FSCH_RATE_OFFSET_S[2][row][i]
 32 to '0'.
 33 - If RSCH_VAR_TABLE_ID_S[1] is not equal to '000', then the mobile station shall
 34 store the following:
 35 + For row=1, ..., 15

- 1 o For i=1, ..., row,
 - 2 ◇ If the i^{th} bit position in MASK_s[RSCH_VAR_TABLE_ID_s[1]][row] is
 3 equal to '1', then the mobile station shall set
 4 VAR_RSCH_RATE_OFFSET_s[1][row][i] to i,
 - 5 ◇ otherwise, the mobile shall set VAR_RSCH_RATE_OFFSET_s[1][row][i]
 6 to '0'.
- 7 - If RSCH_VAR_TABLE_ID_s[2] is not equal to '000', then the mobile station shall
 8 store the following:
 - 9 + For row=1, ..., 15
 - 10 o For i=1, ..., row,
 - 11 ◇ If the i^{th} bit position in MASK_s[RSCH_VAR_TABLE_ID_s[2]][row] is
 12 equal to '1', then the mobile station shall set
 13 VAR_RSCH_RATE_OFFSET_s[2][row][i] to i,
 - 14 ◇ otherwise, the mobile shall set VAR_RSCH_RATE_OFFSET_s[2][row][i]
 15 to '0'.
 - 16 □ Else (if USE_OLD_VAR_TABLE_r is included and equal to '1'), use the previously
 17 stored values for VAR_RSCH_RATE_OFFSET_s and VAR_FSCH_RATE_OFFSET_s.
 - 18 • If USE_OLD_VAR_MAPPING_r is included and equal to '0', the mobile station shall
 19 store the following:
 - 20 - FSCH_VAR_TABLE_ID_s[1] = FSCH0_VAR_TABLE_ID_r.
 - 21 - FSCH_VAR_TABLE_ID_s[2] = FSCH1_VAR_TABLE_ID_r.
 - 22 - RSCH_VAR_TABLE_ID_s[1] = RSCH0_VAR_TABLE_ID_r.
 - 23 - RSCH_VAR_TABLE_ID_s[2] = RSCH1_VAR_TABLE_ID_r.
 - 24 • Otherwise, use the previously stored values for the above four variables.
 - 25 • If USE_VAR_RATE_r is equal to '0', the mobile station shall store the following:
 - 26 - FSCH_VAR_TABLE_ID_s[1] = '000'.
 - 27 - FSCH_VAR_TABLE_ID_s[2] = '000'.
 - 28 - RSCH_VAR_TABLE_ID_s[1] = '000'.
 - 29 - RSCH_VAR_TABLE_ID_s[2] = '000'.
 - 30 • If LTU_TABLES_INCL_r is included and is equal to '1', then the mobile station shall
 31 store NUM_LTU_TABLES + 1 instances of the LTU Table which determines the
 32 number of LTUs per frame for convolutionally encoded supplemental channels for
 33 each number of bits per frame. Each LTU Table is identified by its LTU_TABLE_ID.
 - 34 - For each of the NUM_ROWS + 1 rows of the LTU Size Table, the mobile station
 35 shall store the following:

- 1 + LTU_TAB_S[LTU_TABLE_ID_r][NBITS_IDX_r] = LTU_LENNUM_LTUS_r
 2 *Else (if USE_OLD_LTU_TABLE is included and equal to '1'), the mobile station shall
 3 use the previously stored values for the LTU_TAB_S.
- 4 • If USE_OLD_LTU_MAPPING_r is included and is equal to '0', then the mobile station
 5 shall store the following:
 - 6 - FSCH_LTU_TAB_IDS[1] = FSCH0_LTU_TAB_ID_r
 - 7 - FSCH_LTU_TAB_IDS[2] = FSCH1_LTU_TAB_ID_r
 - 8 - RSCH_LTU_TAB_IDS[1] = RSCH0_LTU_TAB_ID_r
 - 9 - RSCH_LTU_TAB_IDS[2] = RSCH1_LTU_TAB_ID_r
 - 10 • Else (if USE_OLD_LTU_MAPPING_r is included and is equal to '1'), the mobile station
 11 shall use the previously stored values for the above four variables.
 - 12 • If LTU_INFO_INCL_r is equal to '0', then the mobile station shall store the following:
 - 13 - FSCH_LTU_TAB_IDS[1] = '000'
 - 14 - FSCH_LTU_TAB_IDS[2] = '000'
 - 15 - RSCH_LTU_TAB_IDS[1] = '000'
 - 16 - RSCH_LTU_TAB_IDS[2] = '000'
 - 17 • If PARTITION_TABLES_INCL_r is included and is equal to '1', then the mobile station
 18 shall store NUM_PARTITION_TABLES + 1 instances of the Partition Table which
 19 determines the number of bits allocated to each service per FCH or DCCH frame as
 20 follows. Each Partition Table is identified by its PARTITION_TABLE_ID.
 - 21 - For each of the NUM_ROWS+1 rows of the Partition Table, the mobile station
 22 shall store the following:
 - 23 + PART_TAB_S[PARTITION_TABLE_ID_r][CATEGORY_r].MUX_HEADER_LEN =
 24 MUX_HEADER_LEN_r
 - 25 + PART_TAB_S[PARTITION_TABLE_ID_r][CATEGORY_r].MUX_HEADER =
 26 MUX_HEADER_r
 - 27 + PART_TAB_S[PARTITION_TABLE_ID_r][CATEGORY_r].NUM_PARTITIONS =
 28 NUM_PARTITIONS_r
 - 29 + For i=1, ..., NUM_PARTITIONS+1; the mobile station shall store the following:
 - 30 o PART_TAB_S[PARTITION_TABLE_ID_r][CATEGORY_r].PARTITION_SR_ID[i] =
 31 SR_ID_r
 - 32 o PART_TAB_S[PARTITION_TABLE_ID_r][CATEGORY_r].PARTITION_NBITS[i] =
 33 SRV_NUM_BITS_r
 - 34 • Else (if PARTITION_TABLES_INCL_r is included and is equal to '0'), the mobile station
 35 shall use the previously stored values for the PART_TAB_S.

- 1 • If USE_OLD_PART_MAPPING_r is included and is equal to '0', then the mobile station
2 shall store the following:
 - 3 - FFCH_PART_TAB_ID_s = FFCH_PART_TAB_ID_r
 - 4 - RFCH_PART_TAB_ID_s = RFCH_PART_TAB_ID_r
 - 5 - FDCCH_PART_TAB_ID_s = FDCCH_PART_TAB_ID_r
 - 6 - RDCCH_PART_TAB_ID_s = RDCCH_PART_TAB_ID_r
- 7 *Else (if USE_OLD_PART_MAPPING_r is included and equal to '1'), the mobile station
8 shall use the previously stored values for the above four variables.
- 9 • If USE_FLEX_NUM_BITS_s is equal to '0', then the mobile station shall store the
10 following:
 - 11 - FFCH_PART_TAB_ID_s = '000'
 - 12 - RFCH_PART_TAB_ID_s = '000'
 - 13 - FDCCH_PART_TAB_ID_s = '000'
 - 14 - RDCCH_PART_TAB_ID_s = '000'

15 2.6.4.1.14 Processing the Security Mode Command Message

16 The mobile station shall process the received *Security Mode Command Message* as follows:

- 17 • The mobile station shall set D_SIG_ENCRYPT_MODE_s to D_SIG_ENCRYPT_MODE_r.
- 18 *For each of the NUM_RECS_r instances of the two field record consisting of
19 CON_REF and UI_ENCRYPT_MODE, the mobile station shall set
20 UI_ENCRYPT_MODE_s[CON_REF_r] to UI_ENCRYPT_MODE_r.
- 21 • If D_SIG_ENCRYPT_MODE_r is not equal to '000', the mobile station shall perform
22 the following:
 - 23 - Set ENCRYPT_MODE_s to '11'
 - 24 - Set ENC_KEY_s to the most recently generated CMEAKEY in the mobile station
25 associated with the AUTHR of the *Origination Message* or *Page Response*
26 *Message*
 - 27 - Set EXT_ENCRYPT_SEQ[0] and EXT_ENCRYPT_SEQ[1] to $256 \times \text{ENC SEQ H}$ if
28 either of the following conditions is true:
 - 29 + The ENC SEQ H field is included in the last *Origination Message* or *Page*
30 *Response Message* and EXT_ENCRYPT_SEQ[0] and EXT_ENCRYPT_SEQ[1]
31 have not been initialized by the last *Channel Assignment Message*, *Extended*
32 *Channel Assignment Message*, or an earlier f-dsch *Security Mode Command*
33 *Message* (see 2.3.12.4.1.3).
 - 34 + This message is a response to a *Security Mode Request Message* (see
35 2.3.12.4.1.3) that includes an ENC SEQ H field.

- For each of the service option connections specified by the CON_REF field included in this message, the mobile station shall set the user information encryption mode in the corresponding service option connection record (SO_CON_REC_S[i]) to UI_ENCRYPT_MODE_r (i.e., set SO_CON_REC_S[i].UI_ENCRYPT_MODE to UI_ENCRYPT_MODE_r where SO_CON_REC_S[i].CON_REF = CON_REF_r).
- For each of the service option connections specified by the CON_REF field included in this message, at the action time of the message the mobile station shall start encrypting user information (e.g., voice and data) using the encryption algorithm specified by SO_CON_REC_S[i].UI_ENCRYPT_MODE where SO_CON_REC_S[i].CON_REF = CON_REF_r. (see Table 3.7.4.5-1).
- If USE_NEW_KEY_r is not included, or is included and is set to '1', the mobile station shall use the session key generated at the most recent registration for encryption of signaling and user information. The mobile station shall store the session key in KEY_S[KEY_SEQ_NEW_{S-p}]. The mobile station shall store KEY_SIZE_r in KEY_SIZE_S. The mobile station shall then increment the variable KEY_SEQ_NEW_{S-p} by one (modulo 16). If ENC_KEY_SIZE_r is included, the mobile station shall set ENC_KEY_SIZE_S to ENC_KEY_SIZE_r.
□ If USE_NEW_KEY_r is included and is set to '0', then the mobile station shall use KEY_S[KEY_SEQ_r] as the session key.
- If C_SIG_ENCRYPT_MODE is included, the mobile station shall set C_SIG_ENCRYPT_MODE_S to C_SIG_ENCRYPT_MODE_r.

2.6.4.2 Traffic Channel Initialization Substate

In this substate, the mobile station verifies that it can receive the Forward Traffic Channel and begins transmitting on the Reverse Traffic Channel.

Upon entering the *Traffic Channel Initialization Substate*, the mobile station shall perform the following:

- The mobile station shall perform registration initialization as specified in 2.6.5.5.4.1.
- Layer 3 shall send an L2-Supervision.Request primitive to Layer 2 to reset the acknowledgment procedures as specified in 2.2.1.1 and 2.2.2.1 of [4].
- The mobile station shall initialize Forward Traffic Channel power control as specified in 2.6.4.1.1.1.
- The mobile station shall initialize the list TAG_OUTSTANDING_LIST to be empty.
- If P_REV_IN_USE_S is less than seven, the mobile station shall set CS_SUPPORTED_S to '0'.
- The mobile station shall set the following variables to their initial default values given below:

- 1 – If the mobile station has included the SYNC_ID field in the *Origination Message*
 2 or *Page Response Message*, the mobile station shall not reset any of the service
 3 configuration parameters (i.e. those signaled via the Service Configuration
 4 information record and the Non-Negotiable Service Configuration information
 5 record) to their default values.
- 6 – Default power control step size
 7 (PWR_CNTL_STEPS = '000')
- 8 – Default Reverse Supplemental Channel power offset adjustment relative to
 9 Reverse Pilot Channel power
 10 + RLGAIN_SCH_PILOT_S [0]= '000000'
 11 + RLGAIN_SCH_PILOT_S [1]= '000000'
- 12 – Default Reverse Discontinuous Transmission Duration on Reverse Supplemental
 13 Code Channel (REV_DTX_DURATION_S = '0000')
- 14 – Default Reverse Discontinuous Transmission Duration on Reverse Supplemental
 15 Channel (REV_SCH_DTX_DURATION_S = '0000')
- 16 – Default channel on which the mobile station is to perform the primary inner loop
 17 estimation and the base station is to multiplex the Power Control Subchannel:
 18 + If CH_IND_S is equal to '01', the mobile station shall set FPC_PRI_CHAN_S to
 19 '0'.
 20 + If CH_IND_S is equal to '10', the mobile station shall set FPC_PRI_CHAN_S to
 21 '1'.
- 22 – Default forward power control operation mode used except during the forward
 23 Supplemental Channel interval
 24 (FPC_MODE_NO_SCH_S = '000')
- 25 – Default forward power control operation mode used during the forward
 26 Supplemental Channel interval
 27 (FPC_MODE_SCH_S = '000')
- 28 – Default forward power control operation mode
 29 (FPC_MODE_S = '000')
- 30 – Slotted timer (T_SLOTTED_S = T_{74m})
- 31 – Default Reverse Pilot Channel gating (PILOT_GATING_USE_RATE='0')
- 32 – Default begin preamble for Reverse Supplemental Code Channels
 33 (BEGIN_PREAMBLE_S = '000')
- 34 – Default resume preamble for Reverse Supplemental Code Channels
 35 (RESUME_PREAMBLE_S = '000')
- 36 – Default start time for Reverse Supplemental Code Channel assignment
 37 (REV_START_TIME_S = NULL)
- 38 – Default retry delays:

- ```

1 + RETRY_DELAYS[010] = 0
2 + RETRY_DELAYS[011] = 0
3 - Default neighbor pilot strength measurement threshold reporting-offset
4 (T_MULCHANS = '000')
5 - Default start time for forward Supplemental Code Channel Assignment
6 (FOR_START_TIMES = NULL)
7 - Default number of Reverse Supplemental Code Channels
8 (NUM_REV_CODEDSS = '000')
9 - Default reverse use T_ADD abort indicator
10 (USE_T_ADD_ABORTS = '0')
11 - Default Supplemental Channel Request Message sequence number
12 (SCRM_SEQ_NUMS = NULL)
13 - Default indicator to ignore reverse Supplemental Code Channel assignment
14 Supplemental Channel Assignment Message
15 (IGNORE_SCAMS = '0')
16 - Default indicator to ignore reverse Supplemental Channel assignment Extended
17 Supplemental Channel Assignment Message
18 (IGNORE_ESCAMS = '0')
19 Default maximum wait time on the CDMA Candidate Frequency
20 (CF_WAIT_TIMES = '1111')
21 - Default search period for the candidate search
22 (SEARCH_PERIODS = '1111')
23 - Default search window size for the Candidate Frequency Search Set
24 (CF_SRCH_WIN_NS = SRCH_WIN_NS)
25 - Default search window size for the Remaining Set on the CDMA Candidate
26 Frequency (CF_SRCH_WIN_RS = SRCH_WIN_RS)
27 - Default pilot PN sequence offset increment for the CDMA Candidate Frequency
28 (CF_PILOT_INCS = PILOT_INCS)
29 - Default Candidate Frequency search priorities included indicator
30 (CF_SEARCH_PRIORITY_INCLS = '0')
31 - Default Candidate Frequency search window size included indicator
32 (CF_SRCH_WIN_NGHBR_INCLS = '0')
33 - Default Candidate Frequency search window offset included indicator
34 (CF_SRCH_OFFSET_INCLS = '0')
35 - Default periodic search indicator
36 (PERIODIC_SEARCHS = '0')
37 - Default return-if-handoff-fail indicator
38 (RETURN_IF_HANDOFF_FAILS = '0')

```

- Default total pilot  $E_c/I_o$  threshold  
(MIN\_TOTAL\_PILOT\_EC\_IO<sub>S</sub> = '00000')
- Default total pilot  $E_c$  threshold  
(SF\_TOTAL\_EC\_THRESH<sub>S</sub> = '11111')
- Default total pilot  $E_c/I_o$  threshold  
(SF\_TOTAL\_EC\_IO\_THRESH<sub>S</sub> = '11111')
- Default received power difference threshold  
(DIFF\_RX\_PWR\_THRESH<sub>S</sub> = '00000')
- Default maximum wait time on the CDMA Target Frequency  
(TF\_WAIT\_TIME<sub>S</sub> = '1111')
- Default Candidate Frequency Search Set  
(Candidate Frequency Search Set is empty)
- Default Analog Frequency Search Set  
(Analog Frequency Search Set is empty)
- Default Candidate Frequency CDMA band  
(CF\_CDMABAND<sub>S</sub> = NULL)
- Default Candidate Frequency CDMA channel  
(CF\_CDMACH<sub>S</sub> = NULL)
- Default indicator for 5ms frames on Fundamental Channel  
(FCH\_5MS\_FRAMES<sub>S</sub> = '0')
- Default indicator for 5ms frames on Dedicated Control Channel  
(DCCH\_5MS\_FRAMES<sub>S</sub> = '0')
- Default start time unit for Supplemental Channel  
(START\_TIME\_UNIT<sub>S</sub> = '000')
- Default Forward Supplemental Channel FER report indicator  
(FOR\_SCH\_FER\_REP<sub>S</sub> = '0')
- Default Forward Supplemental Channel Configuration parameters:
  - + Set the Forward Supplemental Channel frame length FOR\_SCH\_FRAME\_LENGTH<sub>S</sub>[0] to NULL.
  - + Set the Forward Supplemental Channel Multiplex Option FOR\_SCH\_MUX<sub>S</sub>[0] to NULL.
  - + Set the Forward Supplemental Channel Radio Configuration FOR\_SCH\_RC<sub>S</sub>[0] to NULL.
  - + Set the Forward Supplemental Channel Coding Type FOR\_SCH\_CODING<sub>S</sub>[0] to NULL.
  - + Set QOF\_ID<sub>S</sub>[0][SCCL\_INDEX<sub>S</sub>][i] to NULL, for all integer values of i from 0 to 15.

- 1        + Set FOR\_SCH\_CC\_INDEX<sub>S</sub> [0][SCCL\_INDEX<sub>S</sub>][i] to NULL, for all integer  
2        values of i from 0 to 15.
- 3        + Set the Forward Supplemental Channel frame length  
4        FOR\_SCH\_FRAME\_LENGTH<sub>S</sub>[1] to NULL.
- 5        + Set the Forward Supplemental Channel Multiplex Option FOR\_SCH\_MUX<sub>S</sub>[1]  
6        to NULL.
- 7        + Set the Forward Supplemental Channel Radio Configuration  
8        FOR\_SCH\_RC<sub>S</sub>[1] to NULL.
- 9        + Set the Forward Supplemental Channel Coding Type FOR\_SCH\_CODING<sub>S</sub>[1]  
10      to NULL.
- 11      + Set QOF\_ID<sub>S</sub>[1][SCCL\_INDEX<sub>S</sub>][i] to NULL, for all integer values of i from 0 to  
12      15.
- 13      + Set FOR\_SCH\_CC\_INDEX<sub>S</sub> [1][SCCL\_INDEX<sub>S</sub>][i] to NULL, for all integer  
14      values of i from 0 to 15.
- 15      - Call Origination Transaction Identifier  
16      (TAG<sub>S</sub> = '0000').
- 17      - Default Reverse Supplemental Channel Configuration parameters:
  - 18        + REV\_WALSH\_ID<sub>S</sub>[0][0000] = 1
  - 19        + REV\_WALSH\_ID<sub>S</sub>[0][0001] = 1
  - 20        + REV\_WALSH\_ID<sub>S</sub>[0][0010] = 1
  - 21        + REV\_WALSH\_ID<sub>S</sub>[0][0011] = 1
  - 22        + REV\_WALSH\_ID<sub>S</sub>[0][0100] = 0
  - 23        + REV\_WALSH\_ID<sub>S</sub>[0][0101] = 0
  - 24        + REV\_WALSH\_ID<sub>S</sub>[0][0110] = 0
  - 25        + REV\_WALSH\_ID<sub>S</sub>[1][0000] = 1
  - 26        + REV\_WALSH\_ID<sub>S</sub>[1][0001] = 1
  - 27        + REV\_WALSH\_ID<sub>S</sub>[1][0010] = 1
  - 28        + REV\_WALSH\_ID<sub>S</sub>[1][0011] = 0
  - 29        + REV\_WALSH\_ID<sub>S</sub>[1][0100] = 0
  - 30        + REV\_WALSH\_ID<sub>S</sub>[1][0101] = 0
  - 31        + REV\_WALSH\_ID<sub>S</sub>[1][0110] = 0
  - 32        + Set the Reverse Supplemental Channel frame length  
33        REV\_SCH\_FRAME\_LENGTH<sub>S</sub>[0] to NULL.
  - 34        + Set the Reverse Supplemental Channel Multiplex Option REV\_SCH\_MUX<sub>S</sub>[0]  
35        to NULL.

- 1        + Set the Reverse Supplemental Channel Radio Configuration  
 2        REV\_SCH\_RC<sub>S</sub>[0] to NULL.
- 3        + Set the Reverse Supplemental Channel Coding Type REV\_SCH\_CODING<sub>S</sub>[0]  
 4        to NULL.
- 5        + Set the Reverse Supplemental Channel frame length  
 6        REV\_SCH\_FRAME\_LENGTH<sub>S</sub>[1] to NULL.
- 7        + Set the Reverse Supplemental Channel Multiplex Option REV\_SCH\_MUX<sub>S</sub>[1]  
 8        to NULL.
- 9        + Set the Reverse Supplemental Channel Radio Configuration  
 10      REV\_SCH\_RC<sub>S</sub>[1] to NULL.
- 11      + Set the Reverse Supplemental Channel Coding Type REV\_SCH\_CODING<sub>S</sub>[1]  
 12      to NULL.
- 13
- 14      • If P\_REV\_IN\_USE<sub>S</sub> is greater than six, the mobile station shall initialize the logical to  
 15      physical mapping table (LOGICAL\_TO\_PHYSICAL\_MAPPING\_TABLE) according to  
 16      the requirements in Table 2.6.4.2-1:

17  

18      **Table 2.6.4.2-1. Default Logical to Physical Mapping Table**

| <b>SR_ID</b>                              | <b>LOGICAL_RESOURCE</b> | <b>PHYSICAL_RESOURCE</b>                  | <b>FORWARD_FLAG</b> | <b>REVERSE_FLAG</b> | <b>PRIORITY</b> |
|-------------------------------------------|-------------------------|-------------------------------------------|---------------------|---------------------|-----------------|
| 000                                       | 0001                    | (shall be set according to requirement 2) | 1                   | 1                   | 0000            |
| (shall be set according to requirement 1) | 0000                    | (shall be set according to requirement 3) | 1                   | 1                   | 0000            |

19      Where requirement 1 is as follows:

- 20      + The SR\_ID field shall be set to NULL.

21      Requirement 2 is as follows:

- 22      + If CH\_IND<sub>S</sub> is equal to '01', the PHYSICAL\_RESOURCE field shall be set to  
 23      '0000'.
- 24      + If CH\_IND<sub>S</sub> is equal to '10', the PHYSICAL\_RESOURCE field shall be set to  
 25      '0001'.

- 1        + If CH\_IND<sub>S</sub> is equal to '11', there shall be two entries in the default LPM table  
 2              where the PHYSICAL\_RESOURCE field shall be set to '0000' and '0001'  
 3              respectively.

4     Requirement 3 is as follows:

- 5        + If CH\_IND<sub>S</sub> is equal to '01':  
 6              o If the Radio Configuration in use is less than three, the  
 7                   PHYSICAL\_RESOURCE field shall be set to '0000'; otherwise, there shall  
 8                   be three entries in the default LPM table where the  
 9                   PHYSICAL\_RESOURCE field shall be set to '0000', '0010', and '0011'  
 10                  respectively.
- 11        + If CH\_IND<sub>S</sub> is equal to '10':  
 12              o There shall be three entries in the default LPM table where the  
 13                   PHYSICAL\_RESOURCE field shall be set to '0001', '0010', and '0011'  
 14                  respectively.
- 15        + If CH\_IND<sub>S</sub> is equal to '11':  
 16              o There shall be four entries in the default LPM table where the  
 17                   PHYSICAL\_RESOURCE field shall be set to '0000', '0001', '0010', and  
 18                  '0011' respectively.
- 19        • If P\_REV\_IN\_USE<sub>S</sub> is equal to or less than six, the mobile station shall initialize the  
 20           logical to physical mapping table (LOGICAL\_TO\_PHYSICAL\_MAPPING\_TABLE) as  
 21           follows:
  - 22              – Default number of Logical-to-Physical Mapping entries  
 23                   (NUM\_LPM\_ENTRIES<sub>S</sub> = '0100')
  - 24              – Default Table(0) Logical-to-Physical Mapping service reference identifier  
 25                   (LOGICAL\_TO\_PHYSICAL\_MAPPING\_TABLE[0].SR\_ID<sub>S</sub> = '000')
  - 26              – Default Table(0) Logical-to-Physical Mapping logical resource identifier  
 27                   (LOGICAL\_TO\_PHYSICAL\_MAPPING\_TABLE[0].LOGICAL\_RESOURCE<sub>S</sub> = '0001')
  - 28              – Default Table(0) Logical-to-Physical Mapping physical resource identifier:  
 29                  + If CH\_IND<sub>S</sub> is equal to '01' or '11', the mobile station shall set  
 30                      LOGICAL\_TO\_PHYSICAL\_MAPPING\_TABLE[0].PHYSICAL\_RESOURCE<sub>S</sub> to  
 31                      '0000'.  
 32                  + If CH\_IND<sub>S</sub> is equal to '10', the mobile station shall set  
 33                      LOGICAL\_TO\_PHYSICAL\_MAPPING\_TABLE[0].PHYSICAL\_RESOURCE<sub>S</sub> to  
 34                      '0001'.  
 35              – Default Table(0) Logical-to-Physical Mapping forward mapping indicator  
 36                   (LOGICAL\_TO\_PHYSICAL\_MAPPING\_TABLE[0].FORWARD\_FLAG<sub>S</sub> = '1')  
 37              – Default Table(0) Logical-to-Physical Mapping reverse mapping indicator  
 38                   (LOGICAL\_TO\_PHYSICAL\_MAPPING\_TABLE[0].REVERSE\_FLAG<sub>S</sub> = '1')

- 1    – Default Table(0) Logical-to-Physical Mapping priority  
(LOGICAL\_TO\_PHYSICAL\_MAPPING\_TABLE[0].PRIORITY<sub>S</sub> = '0000')
- 2
- 3    – Default Table(1) Logical-to-Physical Mapping service reference identifier  
(LOGICAL\_TO\_PHYSICAL\_MAPPING\_TABLE[1].SR\_ID<sub>S</sub> = '001')
- 4
- 5    – Default Table(1) Logical-to-Physical Mapping logical resource identifier  
(LOGICAL\_TO\_PHYSICAL\_MAPPING\_TABLE[1].LOGICAL\_RESOURCE<sub>S</sub> = '0000')
- 6
- 7    – Default Table(1) Logical-to-Physical Mapping physical resource identifier:
  - 8     + If CH\_IND<sub>S</sub> is equal to '01' or '11', the mobile station shall set  
LOGICAL\_TO\_PHYSICAL\_MAPPING\_TABLE[1].PHYSICAL\_RESOURCE<sub>S</sub> to  
'0000'.
  - 9     + If CH\_IND<sub>S</sub> is equal to '10', the mobile station shall set  
LOGICAL\_TO\_PHYSICAL\_MAPPING\_TABLE[1].PHYSICAL\_RESOURCE<sub>S</sub> to  
'0001'.
- 10
- 11
- 12
- 13
- 14    – Default Table(1) Logical-to-Physical Mapping forward mapping indicator  
(LOGICAL\_TO\_PHYSICAL\_MAPPING\_TABLE[1].FORWARD\_FLAG<sub>S</sub> = '1')
- 15
- 16    – Default Table(1) Logical-to-Physical Mapping reverse mapping indicator  
(LOGICAL\_TO\_PHYSICAL\_MAPPING\_TABLE[1].REVERSE\_FLAG<sub>S</sub> = '1')
- 17
- 18    – Default Table(1) Logical-to-Physical Mapping priority  
(LOGICAL\_TO\_PHYSICAL\_MAPPING\_TABLE[1].PRIORITY<sub>S</sub> = '0000')
- 19
- 20    – Default Table(2) Logical-to-Physical Mapping service reference identifier  
(LOGICAL\_TO\_PHYSICAL\_MAPPING\_TABLE[2].SR\_ID<sub>S</sub> = '001')
- 21
- 22    – Default Table(2) Logical-to-Physical Mapping logical resource identifier  
(LOGICAL\_TO\_PHYSICAL\_MAPPING\_TABLE[2].LOGICAL\_RESOURCE<sub>S</sub> = '0000')
- 23
- 24    – Default Table(2) Logical-to-Physical Mapping physical resource identifier  
(LOGICAL\_TO\_PHYSICAL\_MAPPING\_TABLE[2].PHYSICAL\_RESOURCE<sub>S</sub> to  
'0010').
- 25
- 26    – Default Table(2) Logical-to-Physical Mapping forward mapping indicator  
(LOGICAL\_TO\_PHYSICAL\_MAPPING\_TABLE[2].FORWARD\_FLAG<sub>S</sub> = '1')
- 27
- 28    – Default Table(2) Logical-to-Physical Mapping reverse mapping indicator  
(LOGICAL\_TO\_PHYSICAL\_MAPPING\_TABLE[2].REVERSE\_FLAG<sub>S</sub> = '1')
- 29
- 30    – Default Table(2) Logical-to-Physical Mapping priority  
(LOGICAL\_TO\_PHYSICAL\_MAPPING\_TABLE[2].PRIORITY<sub>S</sub> = '0000')
- 31
- 32    – Default Table(3) Logical-to-Physical Mapping service reference identifier  
(LOGICAL\_TO\_PHYSICAL\_MAPPING\_TABLE[3].SR\_ID<sub>S</sub> = '001')
- 33
- 34    – Default Table(3) Logical-to-Physical Mapping logical resource identifier  
(LOGICAL\_TO\_PHYSICAL\_MAPPING\_TABLE[3].LOGICAL\_RESOURCE<sub>S</sub> = '0000')
- 35
- 36

- Default Table(3) Logical-to-Physical Mapping physical resource identifier (LOGICAL\_TO\_PHYSICAL\_MAPPING\_TABLE[2].PHYSICAL\_RESOURCE<sub>S</sub> to '0011').
- Default Table(3) Logical-to-Physical Mapping forward mapping indicator (LOGICAL\_TO\_PHYSICAL\_MAPPING\_TABLE[3].FORWARD\_FLAG<sub>S</sub> = '1')
- Default Table(3) Logical-to-Physical Mapping reverse mapping indicator (LOGICAL\_TO\_PHYSICAL\_MAPPING\_TABLE[3].REVERSE\_FLAG<sub>S</sub> = '1')
- Default Table(3) Logical-to-Physical Mapping priority (LOGICAL\_TO\_PHYSICAL\_MAPPING\_TABLE[3].PRIORITY<sub>S</sub> = '0000')
- The mobile station shall disable the T<sub>MS\_Slotted</sub> timer, and set SLOTTED<sub>S</sub> to YES.
- If the ASSIGN\_MODE<sub>r</sub> field from the *Channel Assignment Message* equals '000', the mobile station shall set SERV\_NEG<sub>S</sub> to disabled.
- If the ASSIGN\_MODE<sub>r</sub> field from the *Channel Assignment Message* equals '100', the mobile station shall set SERV\_NEG<sub>S</sub> to enabled.
- The mobile station shall determine the service configuration as follows:
  - If SERV\_NEG<sub>S</sub> equals disabled, the initial service configuration shall include Multiplex Option 1 and Radio Configuration 1 for both the Forward and Reverse Traffic Channels, and shall include no service option connections.
  - If SERV\_NEG<sub>S</sub> equals enabled, and if GRANTED\_MODE<sub>S</sub> equals '00', the initial service configuration shall include the multiplex option and radio configuration for the Forward and Reverse Traffic Channels as specified by DEFAULT\_CONFIG<sub>S</sub>, and shall include no service option connections.
  - If SERV\_NEG<sub>S</sub> equals enabled and GRANTED\_MODE<sub>S</sub> equals '01' or '10', ~~the initial service configuration shall include the default Forward and Reverse Traffic Channel multiplex options and transmission rates corresponding to the service option requested by the mobile station in the Origination Message, in the case of a mobile station originated call, or the Page Response Message, in the case of a mobile station terminated that are derived from the radio configurations corresponding to the Table 3.7.2.3.2.21-7 call, and shall include no service option connections.~~
  - + If the mobile station enters the *Traffic Channel Initialization Substate* because of receiving the *Channel Assignment Message*, the initial service configuration shall include the default Forward and Reverse Traffic Channel multiplex options and transmission rates corresponding to the service option requested by the mobile station in the *Origination Message*, in the case of a mobile station originated call, or the *Page Response Message*, in the case of a mobile station terminated, and shall include no service option connections.

1       + If the mobile station enters the *Traffic Channel Initialization Substate* because  
 2       of receiving the *Extended Channel Assignment Message*, the initial service  
 3       configuration shall include the default Forward and Reverse Traffic Channel  
 4       multiplex options that are derived from the radio configurations  
 5       corresponding to the Table 3.7.2.3.2.21-7, and shall include no service  
 6       option connections.

- 7       – If SERV\_NEG<sub>s</sub> equals disabled, the mobile station shall perform the following:
- 8           + If the call is mobile station originated and the *Origination Message* requests a  
 9           special service option, the mobile station shall set SO\_REQ<sub>s</sub> to the special  
 10          service option number.
- 11          + If the call is mobile station originated and the *Origination Message* does not  
 12          request a special service option, the mobile station shall set SO\_REQ<sub>s</sub> to 1  
 13          (the default service option number).
- 14          + If the call is mobile station terminated, the mobile station shall set SO\_REQ<sub>s</sub>  
 15          to the service option number requested in the *Page Response Message*.

16       While in the *Traffic Channel Initialization Substate*, the mobile station shall perform the  
 17       following:

- 18       • The mobile station shall monitor Forward Traffic Channels associated with one or  
 19          more pilots in the Active Set.
- 20       • The mobile station shall perform pilot strength measurements as specified in  
 21          2.6.6.2.2, but shall not send *Pilot Strength Measurement Messages* or *Extended Pilot*  
 22          *Strength Measurement Messages*.
- 23       • The mobile station shall perform registration timer maintenance as specified in  
 24          2.6.5.5.4.2.
- 25       • If the bits of TMSI\_CODE<sub>s-p</sub> are not all equal to ‘1’ and if System Time (in 80 ms  
 26          units) exceeds TMSI\_EXP\_TIME<sub>s-p</sub> × 2<sup>12</sup>, the mobile station shall set all the bits of  
 27          TMSI\_CODE<sub>s-p</sub> to ‘1’ within T<sub>66m</sub> seconds.
- 28       • If the full-TMSI timer expires or has expired, the mobile station shall set all the bits  
 29          of TMSI\_CODE<sub>s-p</sub> to ‘1’. The mobile station shall update the registration variables  
 30          as described in 2.6.5.5.2.5.

31       If the mobile station does not support the assigned CDMA Channel (see 2.1.1 and 3.1.1 of  
 32          [2]) or all of the assigned Forward Traffic code channels (see 2.1.3.1.9 of [2]), the mobile  
 33          station shall enter the *System Determination Substate* of the *Mobile Station Initialization*  
 34          State with an error indication (see 2.6.1.1).

35       If the mobile station supports the assigned CDMA Channel and the assigned Forward  
 36          Traffic code channels, the mobile station shall perform the following:

- 37       • The mobile station shall tune to the assigned CDMA Channel.
- 38       • The mobile station shall set its code channel for the assigned Forward Traffic code  
 39          channel.

- The mobile station shall set its Forward and Reverse Traffic Channel frame offsets to the assigned frame offset as determined by FRAME\_OFFSET<sub>s</sub>.
- The mobile station shall set its Forward and Reverse Traffic Channel long code masks to the public long code mask (see 2.1.3.1.12 of [2]).

If the mobile station does not receive a period of ( $N_{5m} \times 20$ ) ms with sufficient signal quality (e.g. good frames) on the physical channel corresponding to FPC\_PRI\_CHAN<sub>S</sub> within T<sub>50m</sub> seconds after entering this substate, the mobile station shall enter the *System Determination Substate* of the *Mobile Station Initialization State* with a system lost indication (see 2.6.1.1).

If the mobile station receives a period of ( $N_{5m} \times 20$ ) ms with sufficient signal quality (e.g. good frames) on the physical channel corresponding to FPC\_PRI\_CHAN<sub>S</sub> within T<sub>50m</sub> seconds after entering this substate, the mobile station shall perform the following additional functions while it remains in the *Traffic Channel Initialization Substate*:

- The mobile station shall perform Forward Traffic Channel supervision as specified in 2.6.4.1.8. If a loss of the Forward Traffic Channel is declared, the mobile station shall enter the *System Determination Substate* of the *Mobile Station Initialization State* with a system lost indication (see 2.6.1.1).
- The mobile station shall adjust its transmit power as specified in 2.1.2.3 of [2].
- The mobile station shall transmit the Traffic Channel preamble as specified in 2.1.3.6.2.3 and 2.1.3.7.2.3 of [2], and Layer 3 shall send an *acquiring dedicated channel* indication to Layer 2 (see 2.2.2.1.2 of [4]).
- The mobile station shall process Forward Traffic Channel signaling traffic and shall discard other types of Forward Traffic Channel traffic.
- If Layer 3 receives a L2-Condition.Notification primitive from Layer 2 indicating an acknowledgment failure, the mobile station shall disable its transmitter and enter the *System Determination Substate* of the *Mobile Station Initialization State* with a system lost indication (see 2.6.1.1).

The mobile station should provide diversity combining of the Forward Traffic Channels associated with pilots in the Active Set if the mobile station receives multiple pilots in the *Extended Channel Assignment Message*.

If Layer 3 does not receive a *forward dedicated channel acquired* indication from Layer 2 (see 2.2.2.1.2 of [4]) within T<sub>51m</sub> seconds after the first occurrence of receiving a period of ( $N_{5m} \times 20$ ) ms with sufficient signal quality (e.g. good frames) on the physical channel corresponding to FPC\_PRI\_CHAN<sub>S</sub>, the mobile station shall disable its transmitter and enter the *System Determination Substate* of the *Mobile Station Initialization State* with a system lost indication (see 2.6.1.1).

If Layer 3 receives a *forward dedicated channel acquired* indication from Layer 2 within T<sub>51m</sub> seconds after the first occurrence of receiving a period of ( $N_{5m} \times 20$ ) ms with sufficient signal quality (e.g. good frames) on the physical channel corresponding to FPC\_PRI\_CHAN<sub>S</sub>, the mobile station shall perform the following:

- 1     • If CH\_IND<sub>S</sub> is equal to ‘01’ or ‘11’, the mobile station shall begin transmitting on the  
2       Reverse Fundamental Channel.
- 3     • If CH\_IND<sub>S</sub> is equal to ‘10’ or ‘11’, the mobile station shall begin transmitting on the  
4       Reverse Dedicated Control Channel when the mobile station has user data or  
5       signaling traffic to send on the Reverse Dedicated Control Channel.
- 6     • If SERV\_NEG<sub>S</sub> equals disabled, the mobile station shall activate the *SO Negotiation  
7       Subfunction*.
- 8     • If SERV\_NEG<sub>S</sub> equals enabled and the GRANTED\_MODE<sub>S</sub> is ‘00’ or ‘01’, the mobile  
9       station shall activate the *Normal Service Subfunction*.
- 10    • If SERV\_NEG<sub>S</sub> equals enabled and the GRANTED\_MODE<sub>S</sub> is ‘10’, the mobile station  
11      shall activate the *Waiting for Service Connect Message Subfunction*.
- 12    • The HLayer 3 shall instantiate a Call Control instance (as specified in 2.6.10). The  
13      HLayer 3 shall assign a default identifier of NULL to this Call Control instance.
- 14    • The HLayer 3 shall enter the *Traffic Channel Substate*.

#### 15    2.6.4.3 Traffic Channel Substate

16    In this substate, the mobile station may exchange Traffic Channel frames with the base  
17      station in accordance with the current service configuration. The mobile station may  
18      perform the gating operation of Reverse Pilot Channel.

19    The mobile station can be in the *Active Mode* or *Control Hold Mode* while in this substate.

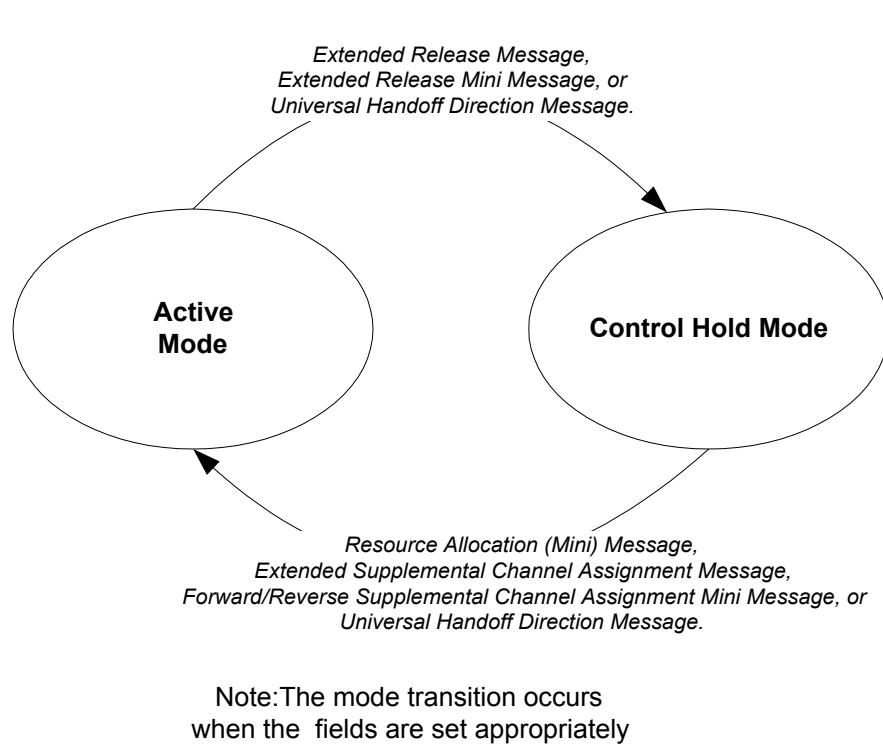
20    The following are the attributes when the mobile station is in the *Active Mode of Traffic  
21      Channel Substate*:

- 22     • PILOT\_GATING\_USE\_RATE is set to ‘0’ (i.e., the reverse pilot (r-pich) is not gated).
- 23     • Flow of data traffic is permitted by the Multiplex Sublayer.

24    The following are the attributes when the mobile station is in the *Control Hold Mode of  
25      Traffic Channel Substate*:

- 26     • PILOT\_GATING\_USE\_RATE is set to ‘1’.
- 27     • The reverse pilot (r-pich) may be gated (if PILOT\_GATING\_RATE<sub>S</sub> is not equal to ‘00’).
- 28     • Flow of data traffic is blocked by the Multiplex Sublayer.

29    Figure 2.6.4.3-1 shows the valid transitions between the modes of a *Traffic Channel  
30      Substate* and the over-the-air Upper Layer Signaling Messages that trigger transitions  
31      between these modes.

**Figure 2.6.4.3-1. Mobile Station Modes**

Upon entering the *Traffic Channel Substate*, the mobile station shall perform the following:

- If SERV\_NEG<sub>S</sub> equals enabled, the call is mobile station originated, and GRANTED\_MODE<sub>S</sub> is equal to '00' or '01', the mobile station should initiate service negotiation to request a service configuration in accordance with the requirements for the active service subfunction (see 2.6.4.1.2.2).

While in the *Traffic Channel Substate*, the mobile station shall perform the following:

- The mobile station shall perform Forward Traffic Channel supervision as specified in 2.6.4.1.8. If a loss of the Forward Traffic Channel is declared, the Layer 3 shall terminate all Call Control instances, and shall enter the *System Determination Substate* of the *Mobile Station Initialization State* with a system lost indication (see 2.6.1.1).
- The mobile station may send a *Pilot Strength Measurement Mini Message* to report pilot strength order change information, periodic pilot strength information, or threshold based pilot strength information, as specified in the *Mobile Assisted Burst Operation Parameters Message* (see 2.6.6.2.5.2).
- The mobile station shall adjust its transmit power as specified in 2.1.2.3 of [2].
- The mobile station shall perform Forward Traffic Channel power control as specified in 2.6.4.1.1.

- 1     • The mobile station shall perform handoff processing as specified in 2.6.6.
- 2     • The mobile station shall process Forward and Reverse Traffic Channel frames in  
3       accordance with requirements for the active service subfunction (see 2.6.4.1.2.2).
- 4     • The mobile station shall perform registration timer maintenance as specified in  
5       2.6.5.5.4.2.
- 6     • If the mobile station is directed to send a *Data Burst Message*, the mobile station  
7       shall send a *Data Burst Message*. If PILOT\_GATING\_USE\_RATE is set to '1', the  
8       mobile station may request to transition to the *Active Mode*  
9       (PILOT\_GATING\_USE\_RATE set to '0') prior to sending the *Data Burst Message*.
- 10    • If the mobile station has user data to send and PILOT\_GATING\_USE\_RATE is equal  
11       to '1', then the mobile station may send a *Resource Request Message*, *Resource*  
12       *Request Mini Message*, *Supplemental Channel Request Message*, or *Supplemental*  
13       *Channel Request Mini Message* to request for continuous reverse pilot transmission  
14       and user traffic transmission. ~~The mobile station shall not send a Resource Request~~  
15       ~~Message or a Resource Request Mini Message if RETRY\_DELAY<sub>s[010]</sub> is not equal to~~  
16       ~~0; the mobile station shall not send a Supplemental Channel Request Message or a~~  
17       ~~Supplemental Channel Request Mini Message if RETRY\_DELAY<sub>s[011]</sub> is not equal to~~  
18       ~~0.~~
- 19    • If the mobile station is directed by the user to request a new service configuration,  
20       the mobile station shall initiate service negotiation or service option negotiation in  
21       accordance with the requirements for the active service subfunction (see  
22       2.6.4.1.2.2).
- 23    • The mobile station may send a *Service Option Control Message* or *Service Option*  
24       *Control Order* to invoke a service option specific function in accordance with the  
25       requirements for the active service subfunction (see 2.6.4.1.2.2).
- 26    • If the mobile station is directed by the user to request a private long code transition  
27       and has the long code mask (see 2.3.12.3), the mobile station shall send a *Long*  
28       *Code Transition Request Order* (ORDQ = '00000001') in assured mode.
- 29    • If the mobile station is directed by the user to request a public long code transition,  
30       the mobile station shall send a *Long Code Transition Request Order* (ORDQ =  
31       '00000000') in assured mode.
- 32    • If the mobile station is directed by the user to operate in analog mode, allowing  
33       operation in either wide or narrow analog mode, the mobile station shall send the  
34       *Request Analog Service Order* in assured mode.
- 35    • If the mobile station is directed by the user to operate in wide analog mode, the  
36       mobile station shall send the *Request Wide Analog Service Order* in assured mode.
- 37    • If the mobile station is directed by the user to operate in narrow analog mode, the  
38       mobile station shall send the *Request Narrow Analog Service Order* in assured mode.
- 39    • If the mobile station is directed by the user to originate a call, the mobile station  
40       shall perform the following:

- If this is an emergency call origination, the mobile station shall perform the following:
  - + If it can be indicated to the base station within an existing Call Control instance, the mobile station shall send an indication to this Call Control instance that the user has originated an emergency call.
  - + Otherwise, the mobile station shall perform the following:
    - o The mobile station shall increment the stored value of TAG<sub>S</sub> to the next unused integer value.
    - o The mobile station shall add TAG<sub>S</sub> to the list TAG\_OUTSTANDING\_LIST.
    - o The mobile station shall send an *Enhanced Origination Message* to the base station, with the TAG field of the message set to TAG<sub>S</sub>.
    - o Upon sending the *Enhanced Origination Message* and prior to receiving a Layer 3 response from the base station, if the mobile station is directed by the user to cancel this call, the mobile station shall perform the following:
      - ◊ The mobile station shall send a *Call Cancel Message* to the base station, with the TAG field of the message set to the TAG value in the *Enhanced Origination Message* sent to originate this call.
      - ◊ The mobile station shall remove the TAG field corresponding to this call from the list TAG\_OUTSTANDING\_LIST.
  - Otherwise, the mobile station shall perform the following:
    - + If this is a packet data call origination, the mobile station shall first determine the following conditions:
      - o If RETRY\_DELAY<sub>S</sub>[001] is set to *infinity*, the mobile station shall not send the *Enhanced Origination Message* to the base station.
      - o If RETRY\_DELAY<sub>S</sub>[001] is not 0 or *infinity*, the mobile station shall not send the *Enhanced Origination Message* until after the system time stored in RETRY\_DELAY<sub>S</sub>[001].
    - + If the above conditions do not prohibit the mobile station from sending an *Enhanced Origination Message* at this time, the mobile station shall perform the following:
      - o The mobile station shall increment the stored value of TAG<sub>S</sub> to the next unused integer value.
      - o The mobile station shall add TAG<sub>S</sub> to the list TAG\_OUTSTANDING\_LIST.
      - o The mobile station shall set an enhanced origination timer to a value of T<sub>42m</sub> seconds.

- 1        o The mobile station shall send an *Enhanced Origination Message* to the  
2                  base station, with the TAG field of the message set to TAGs.
- 3        + Upon sending the *Enhanced Origination Message* and prior to receiving a  
4                  Hlayer 3 response from the base station, if the mobile station is directed by  
5                  the user to cancel this call, the mobile station shall perform the following:
- 6                  o The mobile station shall send a *Call Cancel Message* to the base station,  
7                          with the TAG field of the message set to the TAG value in the *Enhanced*  
8                          *Origination Message* sent to originate this call.
- 9                  o The mobile station shall disable the enhanced origination timer and shall  
10                          remove the TAG field corresponding to this call from the list  
11                          TAG\_OUTSTANDING\_LIST.
- 12                  + If the enhanced origination timer expires, mobile station shall remove the  
13                          TAG field corresponding to this call from TAG\_OUTSTANDING\_LIST.
- 14        • If the Hlayer 3 receives a “call release request” from a Call Control instance, Hlayer 3  
15                  shall perform the following:
- 16                  - If there are no other active or pending calls, the Hlayer 3 shall enter the *Release*  
17                          *Substate* with a mobile station release indication (see 2.6.4.4).
- 18                  - Otherwise, the mobile station shall send a *Service Request Message*, *Resource*  
19                          *Release Request Message*, or a *Resource Release Request Mini Message* to the  
20                          base station requesting to release this service option connection. If the mobile  
21                          station sends a *Resource Release Request Message* or a *Resource Release*  
22                          *Request Mini Message*, it shall set the PURGE\_SERVICE field to ‘0’.
- 23        • If the Hlayer 3 receives a “call inactive indication” from a Call Control instance,  
24                  Hlayer 3 shall perform the following:
- 25                  - If there are no other active or pending calls, the Hlayer 3 shall enter the *Release*  
26                          *Substate* with a service inactive indication (see 2.6.4.4).
- 27                  - Otherwise, the mobile station shall send a *Service Request Message*, *Resource*  
28                          *Release Request Message*, or a *Resource Release Request Mini Message*. If the  
29                          mobile station sends a *Resource Release Request Message* or a *Resource Release*  
30                          *Request Mini Message*, it shall set the PURGE\_SERVICE field to ‘1’.
- 31        • If the mobile station is directed by the user to power down, the layerLayer 3 shall  
32                          send a “release indication” to all Call Control instances, and shall enter the *Release*  
33                          *Substate* with a power-down indication (see 2.6.4.4).
- 34        • If Layer 3 receives a L2-Condition.\_Notification primitive from Layer 2 indicating an  
35                          acknowledgment failure, the layer 3 shall terminate all Call Control instances, and  
36                          the mobile station shall disable its transmitter and shall enter the *System*  
37                          *Determination Substate* of the *Mobile Station Initialization State* with a system lost  
38                          indication (see 2.6.1.1).

- The mobile station shall perform the following:
  - The mobile station may send the *Resource Request Message* or *Resource Request Mini Message* in accordance with requirements for the currently connected service option whenever  $\text{RETRY\_DELAY}_s[\text{RETRY\_TYPE}]$  is equal to 0, where,  $\text{RETRY\_TYPE}$  is equal to '010'.
  - The mobile station shall not send the *Resource Request Message* or *Resource Request Mini Message* whenever  $\text{RETRY\_DELAY}_s[\text{RETRY\_TYPE}]$  is set to *infinity*, where,  $\text{RETRY\_TYPE}$  is equal to '010'.
  - If  $\text{RETRY\_DELAY}_s[\text{RETRY\_TYPE}]$  is not 0 or *infinity*, the mobile station shall not send the *Resource Request Message* or *Resource Request Mini Message* until after the system time stored in  $\text{RETRY\_DELAY}_s[\text{RETRY\_TYPE}]$ , where,  $\text{RETRY\_TYPE}$  is equal to '010'.
  - The mobile station may send the *Supplemental Channel Request Message* or *Supplemental Channel Request Mini Message* whenever  $\text{RETRY\_DELAY}_s[\text{RETRY\_TYPE}]$  is set to '0', where,  $\text{RETRY\_TYPE}$  is equal to '011'.
  - The mobile station shall not send the *Supplemental Channel Request Message* or *Supplemental Channel Request Mini Message* whenever  $\text{RETRY\_DELAY}_s[\text{RETRY\_TYPE}]$  is set to *infinity*, where,  $\text{RETRY\_TYPE}$  is equal to '011'.
  - If  $\text{RETRY\_DELAY}_s[\text{RETRY\_TYPE}]$  is not 0 or *infinity*, the mobile station shall not send the *Supplemental Channel Request Message* or *Supplemental Channel Request Mini Message* until after the system time stored in  $\text{RETRY\_DELAY}_s[\text{RETRY\_TYPE}]$ , where,  $\text{RETRY\_TYPE}$  is equal to '011'.
  - At the system time stored in  $\text{RETRY\_DELAY}_s[\text{RETRY\_TYPE}]$ , the mobile station shall reset  $\text{RETRY\_DELAY}_s[\text{RETRY\_TYPE}]$  to '0<sup>2</sup>', where  $\text{RETRY\_TYPE}$  is equal to '001', '010' or '011'.
- The mobile station may send a *Resource Release Request Message* or a *Resource Release Request Mini Message* to request for reverse pilot gating operation to be performed or to request a service option connection to be disconnected.
- The mobile station may enter the *Release Substate* with a service inactive indication (see 2.6.4.4) if the service corresponding to the packet data service option instance is inactive at the mobile station.
- If [layer-3Layer 3](#) receives a "substate timer expired indication" from a Call Control instance, the [layer-3Layer 3](#) shall perform the following:
  - If there are no other active or pending calls, the [layer-3Layer 3](#) shall terminate this Call Control instance; and the mobile station shall disable its transmitter and enter the *System Determination Substate* of the *Mobile Station Initialization State* with a system lost indication (see 2.6.1.1).
  - Otherwise, the mobile station shall send a *Service Request Message*, *Resource Release Request Message*, or a *Resource Release Request Mini Message*.

- 1     • If there are no active or pending calls, the layer 3Layer 3 shall enter the *Release*  
2        *Substate* with a mobile station release indication.
- 3     • If layer 3Layer 3 receives a ‘message rejected indication’ from a Call Control  
4        instance, mobile station shall send a *Mobile Station Reject Order* (ORDQ set to the  
5        applicable reason code as determined from Table 2.7.3-1) within T<sub>56m</sub> seconds as  
6        follows:  
7        - If P\_REV\_IN\_USE<sub>S</sub> is equal to or greater than seven, the mobile station shall  
8            include the CON\_REF\_INCL field with this message and shall perform the  
9            following: if the corresponding Call Control instance is identified by NULL, the  
10           mobile station shall either set the CON\_REF\_INCL field of the message to ‘0’ or  
11           set the CON\_REF\_INCL field to ‘1’ and set the CON\_REF field to the connection  
12           reference of the service option connection corresponding to this Call Control  
13           instance; otherwise, the mobile station shall set the CON\_REF\_INCL field of the  
14           message to ‘1’ and the CON\_REF field of the message to the connection reference  
15           of the service option connection corresponding to this Call Control instance.
- 16     • If Layer 3 is requested by the upper layers to query base station identification  
17        number, SID, and NID related information for one or more pilots, and  
18        PILOT\_INFO\_REQ\_SUPPORTED<sub>S</sub> equals ‘1’, mobile station shall send a Base Station  
19        Status Request Message with a “Pilot Information” record type to the base station.
- 20     • If the mobile station receives a message which is included in the following list and  
21        every message field value is within its permissible range, the mobile station shall  
22        process the message as described below and in accordance with the message’s  
23        action time (see 2.6.4.1.5).
  - 24        1. *Alert With Information Message:* If P\_REV\_IN\_USE<sub>S</sub> is less than seven, the layer  
25           3Layer 3 shall deliver this message to the Call Control instance; otherwise, the  
26           layer 3Layer 3 shall deliver this message to the Call Control instance identified  
27           by NULL.
  - 28        2. *Analog Handoff Direction Message:* If the analog mode directed by the base  
29           station is supported by the mobile station, the mobile station shall process the  
30           message as specified in 2.6.6.2.9, and shall perform the following at the action  
31           time of the message:
    - 32           - If P\_REV\_IN\_USE<sub>S</sub> is equal to or greater than seven, the mobile station shall  
33              perform the following: if CON\_REF\_INCL<sub>r</sub> equals ‘0’, the layer 3Layer 3 shall  
34              terminate all Call Control instances (if there are any) except the one  
35              identified by NULL; otherwise, the layer 3Layer 3 shall terminate all Call  
36              Control instances (if there are any) except the one identified by CON\_REF<sub>r</sub>.
    - 37           - The mobile station shall perform the following (see [6] for handoff to a wide  
38              analog channel and [22] for handoff to an 800 MHz narrow analog channel):
      - 39              + If this Call Control instance is in the *Waiting for Order Substate*, the  
40                mobile station shall enter the Waiting for Order Task.

- + If this Call Control instance is in the *Waiting for Mobile Station Answer Substate*, the mobile station shall enter the Waiting for Answer Task.
- + If this Call Control instance is in the *Conversation Substate*, the mobile station shall enter the Conversation Task.
- If the mobile station is directed to an unsupported operation mode or band class, the mobile station shall respond with a *Mobile Station Reject Order* with ORDQ equal to '00000110' (message requires a capability that is not supported by the mobile station).

3. *Audit Order*

4. *Authentication Challenge Message*: The ~~layer 3~~Layer 3 shall send a “reset waiting for order substate timer indication” to all Call Control instances. The mobile station shall process the message and shall respond as specified in 2.3.12.1.4 within T<sub>32m</sub> seconds, regardless of the value of AUTH<sub>S</sub>.

5. *Base Station Challenge Confirmation Order*: The ~~layer 3~~Layer 3 shall send a “reset waiting for order substate timer indication” to all Call Control instances. The mobile station shall process the message and shall respond with an *SSD Update Confirmation Order* or *SSD Update Rejection Order* as specified in 2.3.12.1.5 within T<sub>32m</sub> seconds.

6. *Base Station Status Response Message*: The Layer 3 shall deliver the information contained in this message to the Upper Layer entity that requested for this information.

6.7. Call Assignment Message: The mobile station shall process this message as follows:

- If RESPONSE\_IND<sub>r</sub> equals ‘1’ and TAG<sub>r</sub> matches any of the TAG values contained in the list TAG\_OUTSTANDING\_LIST, the mobile station shall perform the following:
  - + If ACCEPT\_IND<sub>r</sub> equals ‘0’, the mobile station shall disable the enhanced origination timer and shall remove the TAG value specified by TAG<sub>r</sub> from the list TAG\_OUTSTANDING\_LIST.
  - + If ACCEPT\_IND<sub>r</sub> equals ‘1’, the mobile station shall perform the following:
    - o If there already exists or currently pending instantiation a Call Control instance identified by CON\_REF<sub>r</sub>, the mobile station shall send a *Mobile Station Reject Order* with ORDQ field set to ‘00010010’ (a call control instance is already present with the specified identifier), with the CON\_REF field of the order set to CON\_REF<sub>r</sub>.

- 1           o Otherwise, [layer 3](#)[Layer 3](#) shall instantiate a Call Control instance (as  
 2            specified in 2.6.10) at the action time of the message. The mobile  
 3            station shall identify this Call Control instance by CON\_REF<sub>r</sub>. If a  
 4            service option connection corresponding to this call has not been  
 5            established, the mobile station should wait for the base station to  
 6            initiate service negotiation to establish the service option connection.
- 7           o The mobile station shall disable the enhanced origination timer and  
 8            shall remove the TAG value specified by TAG<sub>r</sub> from the list  
 9            TAG\_OUTSTANDING\_LIST.
- 10          – If RESPONSE\_IND<sub>r</sub> equals ‘1’ and TAG<sub>r</sub> does not match any of the TAG  
 11            values contained in the list TAG\_OUTSTANDING\_LIST, the mobile station  
 12            shall send a *Mobile Station Reject Order* with ORDQ field set to ‘00010011’  
 13            (TAG received does not match TAG stored), with the TAG field of the order set  
 14            to TAG<sub>r</sub>, and the CON\_REF field of the order set to CON\_REF<sub>r</sub>.
- 15          – If RESPONSE\_IND<sub>r</sub> equals ‘0’, the mobile station shall perform the following:
- 16            + If there already exists [or currently pending instantiation](#) a Call Control  
 17            instance identified by CON\_REF<sub>r</sub>, the mobile station shall send a *Mobile*  
 18            *Station Reject Order* with ORDQ field set to ‘00010010’ (a call control  
 19            instance is already present with the specified identifier), with the  
 20            CON\_REF field of the order set to CON\_REF<sub>r</sub>.
- 21            + Otherwise, if the mobile station does not accept this call assignment, the  
 22            mobile station shall send a *Mobile Station Reject Order* with ORDQ field  
 23            set to ‘00010000’ (call assignment not accepted), with the CON\_REF field  
 24            of the order set to CON\_REF<sub>r</sub>.
- 25            + Otherwise, at the action time of the message, the mobile station shall  
 26            store the bypass indicator (BYPASS\_ALERT\_ANSWER<sub>s</sub> =  
 27            BYPASS\_ALERT\_ANSWER<sub>r</sub>) and the [layer 3](#)[Layer 3](#) shall instantiate a  
 28            Call Control instance (as specified in 2.6.10). The mobile station shall  
 29            identify this Call Control instance by CON\_REF<sub>r</sub>. If a service option  
 30            connection corresponding to this call has not been established, the  
 31            mobile station should wait for the base station to initiate service  
 32            negotiation to establish the service option connection.

33          [7.8.](#) *Candidate Frequency Search Control Message*: The mobile station shall process  
 34            the message as specified in 2.6.6.2.5.1.

35          [8.9.](#) *Candidate Frequency Search Request Message*: The mobile station shall process  
 36            the message as specified in 2.6.6.2.5.1.

37          [9.10.](#) *Continuous DTMF Tone Order*: Support of this order by the mobile station is  
 38            optional. If P\_REV\_IN\_USE<sub>s</sub> is less than seven, the [layer 3](#)[Layer 3](#) shall deliver  
 39            this message to the Call Control instance; otherwise, the [layer 3](#)[Layer 3](#) shall

1      | perform the following: if CON\_REF\_INCL<sub>r</sub> equals '0', the ~~layer 3~~Layer 3 shall  
 2      | deliver this message to the Call Control instance identified by NULL; otherwise,  
 3      | the ~~layer 3~~Layer 3 shall deliver this message to the Call Control instance  
 4      | identified by CON\_REF<sub>r</sub>.

5      | [10.11. Data Burst Message](#)

6      | [11.12. Extended Alert With Information Message](#): The mobile station shall perform  
 7      | the following: If CON\_REF\_INCL<sub>r</sub> equals '0', the ~~layer 3~~Layer 3 shall deliver this  
 8      | message to the Call Control instance identified by NULL; otherwise, the ~~layer~~  
 9      | ~~3~~Layer 3 shall deliver this message to the Call Control instance identified by  
 10     | CON\_REF<sub>r</sub>.

11     | [12.13. Extended Flash With Information Message](#): The mobile station shall perform  
 12     | the following: If CON\_REF\_INCL<sub>r</sub> equals '0', the ~~layer 3~~Layer 3 shall deliver this  
 13     | message to the Call Control instance identified by NULL; otherwise, the ~~layer~~  
 14     | ~~3~~Layer 3 shall deliver this message to the Call Control instance identified by  
 15     | CON\_REF<sub>r</sub>.

16     | [13.14. Extended Handoff Direction Message](#): The ~~layer 3~~Layer 3 shall send a "reset  
 17     | waiting for order substate timer indication" to all Call Control instances. The  
 18     | mobile station shall process the message as specified in 2.6.6.2.5.1.

19     | [14.15. Extended Neighbor List Update Message](#): The mobile station shall process the  
 20     | message as specified in 2.6.6.2.5.1.

21     | [15.16. Extended Release Message](#): The mobile station shall process the message as  
 22     | specified in 2.6.4.1.9.

23     | [16.17. Extended Release Mini Message](#): The mobile station shall process the  
 24     | message as specified in 2.6.4.1.9.

25     | [17.18. Forward Supplemental Channel Assignment Mini Message](#): The mobile station  
 26     | shall process the message as specified in 2.6.6.2.5.1.

27     | [18.19. Flash With Information Message](#): If P\_REV\_IN\_USE<sub>s</sub> is less than seven, the  
 28     | ~~layer 3~~Layer 3 shall deliver this message to the Call Control instance; otherwise,  
 29     | the ~~layer 3~~Layer 3 shall deliver this message to the Call Control instance  
 30     | identified by NULL.

31     | [19.20. Extended Supplemental Channel Assignment Message](#): The mobile station  
 32     | shall process the message as specified in 2.6.6.2.5.1.

33     | [20.21. General Handoff Direction Message](#): The ~~layer 3~~Layer 3 shall send a "reset  
 34     | waiting for order substate timer indication" to all Call Control instances. The  
 35     | mobile station shall process the message as specified in 2.6.6.2.5.1.

36     | [21.22. In-Traffic System Parameters Message](#): The mobile station shall process the  
 37     | message as specified in 2.6.4.1.4.

38     | [22.23. Local Control Order](#)

39     | [23.24. Lock Until Power-Cycled Order](#): The mobile station shall disable its  
 40     | transmitter and record the reason for the *Lock Until Power-Cycled Order* in the

mobile station's semi-permanent memory ( $LCKRSN_{S-p}$  equals the least-significant four bits of  $ORDQ_r$ ). The mobile station should notify the user of the locked condition. The ~~layer 3~~Layer 3 shall terminate all Call Control instances, and shall enter the *System Determination Substate* of the *Mobile Station Initialization State* with a lock indication (see 2.6.1.1), and shall not enter the *System Access State* again until after the next mobile station power-up or until it has received an *Unlock Order*. This requirement shall take precedence over any other mobile station requirement specifying entry to the *System Access State*.

~~24.25.~~ *Long Code Transition Request Order*: The mobile station shall process the message as specified in 2.6.4.1.6.

~~25.26.~~ *Maintenance Order*: If  $P_{REV\_IN\_USE_s}$  is less than seven, the ~~layer 3~~Layer 3 shall deliver this message to the Call Control instance; otherwise, the ~~layer 3~~Layer 3 shall perform the following: if  $CON\_REF\_INCL_r$  equals '0', the ~~layer 3~~Layer 3 shall deliver this message to the Call Control instance identified by NULL; otherwise, the ~~layer 3~~Layer 3 shall deliver this message to the Call Control instance identified by  $CON\_REF_r$ .

~~26.27.~~ *Maintenance Required Order*: The mobile station shall record the reason for the *Maintenance Required Order* in the mobile station's semi-permanent memory ( $MAINTRSN_{S-p}$  equals the least-significant four bits of  $ORDQ_r$ ). The mobile station shall remain in the unlocked condition. The mobile station should notify the user of the maintenance required condition.

~~27.28.~~ *Message Encryption Mode Order*: The mobile station shall process the message as specified in 2.3.12.2.

~~28.29.~~ *Mobile Station Registered Message*: The mobile station shall process the message as specified in 2.6.5.5.4.3.

~~29.30.~~ *Mobile Assisted Burst Operation Parameters Message*: The mobile station shall process the message as specified in 2.6.6.2.5.1.

~~30.31.~~ *Neighbor List Update Message*: The mobile station shall process the message as specified in 2.6.6.2.5.1.

~~31.32.~~ *Outer Loop Report Request Order*: The mobile station shall send the *Outer Loop Report Message* in assured mode to the base station.

~~32.33.~~ *Parameter Update Order*: The ~~layer 3~~Layer 3 shall send a "reset waiting for order substate timer indication" to all Call Control instances. The mobile station shall increment  $COUNT_{S-p}$  (see 2.3.12.1.3). The mobile station shall send a *Parameter Update Confirmation Order* within  $T_{56m}$  seconds. The mobile station shall set the  $ORDQ$  field of the *Parameter Update Confirmation Order* to the same value as the  $ORDQ$  field of the *Parameter Update Order*.

~~33.34.~~ *Periodic Pilot Measurement Request Order*: The mobile station shall process the order as specified in 2.6.6.2.5.1.

~~34.35.~~ *Pilot Measurement Request Order*: The mobile station shall process the order

1 as specified in 2.6.6.2.5.1.

2     [35.36.](#) *Power Control Message*: The mobile station shall process the message as  
3        specified in 2.6.4.1.1.3.

4     [36.37.](#) *Power Control Parameters Message*: The mobile station shall process the  
5        message as specified in 2.6.4.1.1.2.

6     [37.38.](#) *Power Up Function Message*: The mobile station shall process the message as  
7        specified in 2.6.4.1.7.1.

8     [38.39.](#) *Power Up Function Completion Message*: The mobile station shall process the  
9        message as specified in 2.6.4.1.7.3.

10    [39.40.](#) *Release Order*: The layer 3Layer 3 shall send a “release indication” to all Call  
11       Control instances, and shall enter the *Release Substate* with a base station  
12       release indication (see 2.6.4.4).

13    [40.41.](#) *Resource Allocation Message*: The mobile station shall process the message  
14       as specified in 2.6.4.1.10.

15    [41.42.](#) *Resource Allocation Mini Message*: The mobile station shall process the  
16       message as specified in 2.6.4.1.10.

17    [42.43.](#) *Retrieve Parameters Message*: The mobile station shall send, within T<sub>56m</sub>  
18       seconds, a *Parameters Response Message*.

19    [43.44.](#) *Retry Order*: The mobile station shall process the order as follows:

- 20      • If RETRY\_TYPE<sub>r</sub> is equal to ‘000’, the mobile station shall set  
21           RETRY\_DELAY<sub>s</sub>[RETRY\_TYPE] to 50, where RETRY\_TYPE is equal to ‘001’,  
22           ‘010’, or ‘011’.
- 23      • If RETRY\_TYPE<sub>r</sub> is equal to ‘001’, then the mobile station shall perform the  
24           following:
  - 25           – If RETRY\_DELAY<sub>r</sub> is equal to ‘00000000’, then the mobile station shall  
26              set RETRY\_DELAY<sub>s</sub> [RETRY\_TYPE<sub>r</sub>] to 0.
  - 27           – If RETRY\_DELAY<sub>r</sub> is not equal to ‘00000000’ the mobile station shall set  
28              RETRY\_DELAY<sub>s</sub>[RETRY\_TYPE<sub>r</sub>] as follows:
    - 29               + If the most significant bit of the RETRY\_DELAY<sub>r</sub> is 0, set  
30                  RETRY\_DELAY\_UNIT<sub>s</sub> to 1000ms. If the most significant bit of the  
31                  RETRY\_DELAY<sub>r</sub> is ‘1’, set RETRY\_DELAY\_UNIT<sub>s</sub> to 60000ms.
    - 32               + The mobile station shall set RETRY\_DELAY\_VALUE<sub>s</sub> to the seven  
33                  least significant bits of RETRY\_DELAY<sub>r</sub>.
    - 34               + The mobile station shall store the next system time 80 ms boundary +  
35                  RETRY\_DELAY\_VALUE<sub>s</sub> × RETRY\_DELAY\_UNIT<sub>s</sub> ms as  
36                  RETRY\_DELAY<sub>s</sub>[RETRY\_TYPE<sub>r</sub>].
  - 37           • If RETRY\_TYPE<sub>r</sub> is equal to ‘010’ or ‘011’, the mobile station shall perform  
38              the following:

- 1    - If  $\text{RETRY\_DELAY}_r[\text{RETRY\_TYPE}_r]$  is '00000000', then the mobile station  
2    shall set  $\text{RETRY\_DELAY}_s[\text{RETRY\_TYPE}_r]$  to '0'.
- 3    - If  $\text{RETRY\_DELAY}_r[\text{RETRY\_TYPE}_r]$  is '11111111', then the mobile station  
4    shall set  $\text{RETRY\_DELAY}_s[\text{RETRY\_TYPE}_r]$  to *infinity*.
- 5    - If  $\text{RETRY\_DELAY}_r[\text{RETRY\_TYPE}_r]$  is not equal to '00000000' or  
6    '11111111', the mobile station shall store the next system time 80 ms  
7    boundary +  $\text{RETRY\_DELAY}_r[\text{RETRY\_TYPE}_r] \times 320$  ms as  
8     $\text{RETRY\_DELAY}_s[\text{RETRY\_TYPE}_r]$ .

9    **44.45. Reverse Supplemental Channel Assignment Mini Message:** The mobile station  
10   shall process the message as specified in 2.6.6.2.5.1.

11   **45.46. Security Mode Command Message:** The mobile station shall process the  
12   message as specified in 2.6.4.1.14.

13   **46.47. Send Burst DTMF Message:** Support of this order by the mobile station is  
14   optional. If  $P_{REV\_IN\_USE}s$  is less than seven, the layer 3 shall deliver  
15   this message to the Call Control instance; otherwise, the layer 3 shall  
16   perform the following: if  $CON_{REF\_INCL}r$  equals '0', the layer 3 shall  
17   deliver this message to the Call Control instance identified by NULL; otherwise,  
18   the layer 3 shall deliver this message to the Call Control instance  
19   identified by  $CON_{REF}r$ .

20   **47.48. Service Connect Message:** The mobile station shall process the message in  
21   accordance with the requirements for the active service subfunction (see  
22   2.6.4.1.2.2)-if the message is not rejected due to the following conditions:

- 23    - If the CC INFO INCL field is included in this message and is set to '1', the  
24       mobile station shall perform the following for each of the  
25       NUM CALLS ASSIGN call assignments included in this message:
  - 26        + If there already exists or currently pending instantiation a Call Control  
27           instance identified by CON REF<sub>r</sub>, the mobile station shall send a Mobile  
28           Station Reject Order with ORDQ field set to '00010010' (a call control  
29           instance is already present with the specified identifier), with the  
30           CON REF field of the order set to CON REF<sub>r</sub>.
  - 31        + If RESPONSE IND<sub>r</sub> equals '1' and TAG<sub>r</sub> does not match any of the TAG  
32           values contained in the list TAG OUTSTANDING LIST, the mobile station  
33           shall send a Mobile Station Reject Order with ORDQ field set to  
34           '00010011' (TAG received does not match TAG stored), with the TAG field  
35           of the order set to TAG<sub>r</sub>, and the CON REF field of the order set to  
36           CON REF<sub>r</sub>.
  - 37        + If the mobile station does not accept this call assignment, the mobile  
38           station shall send a Mobile Station Reject Order with ORDQ field set to  
39           '00010000' (call assignment not accepted), with the CON REF field of the  
40           order set to CON REF<sub>r</sub>.

1            **48.49.** *Service Option Control Message:* The mobile station shall process the  
 2            message in accordance with the requirements for the active service subfunction  
 3            (see 2.6.4.1.2.2).

4            **49.50.** *Service Option Control Order:* The mobile station shall process the message  
 5            in accordance with the requirements for the active service subfunction (see  
 6            2.6.4.1.2.2).

7            **50.51.** *Service Option Request Order:* The mobile station shall process the message  
 8            in accordance with the requirements for the active service subfunction (see  
 9            2.6.4.1.2.2).

10          **51.52.** *Service Option Response Order:* The mobile station shall process the message  
 11         in accordance with the requirements for the active service subfunction (see  
 12         2.6.4.1.2.2).

13          **52.53.** *Service Redirection Message:* The mobile station shall process the message  
 14         as follows:

15         If RECORD\_TYPE<sub>r</sub> is equal to '00000000', the mobile station shall do the  
 16         following:

- 17            – The mobile station shall set RETURN\_IF\_FAIL<sub>s</sub> = RETURN\_IF\_FAIL<sub>r</sub>.
- 18            – If DELETE\_TMSI<sub>r</sub> is equal to '1', the mobile station shall set all the bits of  
 19            TMSI\_CODE<sub>s-p</sub> to '1'.
- 20            – The mobile station shall disable the full-TMSI timer.
- 21            – The layer 3 shall send a "release indication" to all Call Control  
 22            instances, and shall enter the Release Substate with an NDSS off  
 23            indication (see 2.6.4.4).

24         If RECORD\_TYPE<sub>r</sub> is not equal to '00000000', REDIRECT\_TYPE<sub>r</sub> is '1', and the  
 25         mobile station supports the band class and operating mode specified in the  
 26         message, the mobile station shall do the following:

- 27            – The mobile station shall store the redirection record received in the  
 28            message as REDIRECT\_REC<sub>s</sub>.
- 29            – The mobile station shall enable NDSS\_ORIG<sub>s</sub> and shall record the dialed  
 30            digits (if any) corresponding to the last MS originated call.
- 31            – The mobile station shall set RETURN\_IF\_FAIL<sub>s</sub> = RETURN\_IF\_FAIL<sub>r</sub>.
- 32            – If DELETE\_TMSI<sub>r</sub> is equal to '1', the mobile station shall set all the bits of  
 33            TMSI\_CODE<sub>s-p</sub> to '1'.
- 34            – The mobile station shall disable the full-TMSI timer.
- 35            – The layer 3 shall send a "release indication" to all Call Control  
 36            instances, and shall enter the *Release Substate* with a redirection indication (see  
 37            2.6.4.4). Otherwise, the mobile station shall discard the message and send a  
 38            *Mobile Station Reject Order* (ORDQ set to the applicable reason code as  
 39            determined from Table 2.7.3-1) within T<sub>56m</sub> seconds.

1           **53.54.** *Service Request Message:* The mobile station shall process the message in  
 2           accordance with the requirements for the active service subfunction (see  
 3           2.6.4.1.2.2).

4           **54.55.** *Service Response Message:* The mobile station shall process the message in  
 5           accordance with the requirements for the active service subfunction (see  
 6           2.6.4.1.2.2).

7           **55.56.** *Set Parameters Message:* If the mobile station can set all of the parameters  
 8           specified by the PARAMETER\_ID fields in the message, the mobile station shall  
 9           set them; otherwise, the mobile station shall send, within T<sub>56m</sub> seconds, a  
 10          *Mobile Station Reject Order.*

11          **56.57.** *SSD Update Message:* The ~~layer 3~~**Layer 3** shall send a “reset waiting for order  
 12          substate timer indication” to all Call Control instances. The mobile station shall  
 13          process the message and respond with a *Base Station Challenge Order* as  
 14          specified in 2.3.12.1.5 within T<sub>32m</sub> seconds.

15          **57.58.** *Status Request Message:* The mobile station shall send, within T<sub>56m</sub>  
 16          seconds, a *Status Response Message*. If the message does not specify any  
 17          qualification information (QUAL\_INFO\_TYPE<sub>r</sub> is equal to ‘00000000’), the mobile  
 18          station shall include the requested information records in the *Status Response*  
 19          *Message*. If the message specifies a band class (QUAL\_INFO\_TYPE<sub>r</sub> is equal to  
 20          ‘00000001’), the mobile station shall only include the requested information  
 21          records for the specified band class (BAND\_CLASS<sub>r</sub>) in the *Status Response*  
 22          *Message*. If the message specifies a band class and an operating mode  
 23          (QUAL\_INFO\_TYPE<sub>r</sub> is equal to ‘00000010’), the mobile station shall only  
 24          include the requested information records for the specified band class  
 25          (BAND\_CLASS<sub>r</sub>) and operating mode (OP\_MODE<sub>r</sub>) in the *Status Response*  
 26          *Message*.

27          If the message specifies a band class or a band class and an operating mode  
 28          which is not supported by the mobile station, the mobile station shall send a  
 29          *Mobile Station Reject Order* with ORDQ set to ‘00000110’ (message requires a  
 30          capability that is not supported by the mobile station).

31          If the response to this message exceeds the allowable length, the mobile station  
 32          shall send a *Mobile Station Reject Order* with ORDQ set to ‘00001000’ (response  
 33          message would exceed the allowable length).

34          If the message specifies an information record which is not supported by the  
 35          mobile station for the specified band class and operating mode, the mobile  
 36          station shall send a *Mobile Station Reject Order* with ORDQ set to ‘00001001’  
 37          (information record is not supported for the specified band class and operating  
 38          mode).

39          **58.59.** *Status Request Order:* If CDMABAND<sub>s</sub> is equal to ‘00000’, the mobile station  
 40          shall send a *Status Message* within T<sub>56m</sub> seconds. The mobile station shall  
 41          respond with information corresponding to the current band class and  
 42          operating mode.

1            **59-60.** *Supplemental Channel Assignment Message:* The mobile station shall process  
 2            the message as specified in 2.6.6.2.5.1.

3            **60-61.** *TMSI Assignment Message:* The mobile station shall store the TMSI zone and  
 4            code as follows:

- 5            • The mobile station shall store the length of the TMSI zone field by setting  
               ASSIGNING\_TMSI\_ZONE\_LEN<sub>s-p</sub> to TMSI\_ZONE\_LEN<sub>r</sub>,
- 6            • The mobile station shall store the assigning TMSI zone number by setting  
               the ASSIGNING\_TMSI\_ZONE\_LEN<sub>s-p</sub> least significant octets of  
               ASSIGNING\_TMSI\_ZONE<sub>s-p</sub> to TMSI\_ZONE<sub>r</sub>, and
- 7            • The mobile station shall store the TMSI code by setting TMSI\_CODE<sub>s-p</sub> to  
               TMSI\_CODE<sub>r</sub>.

8            The mobile station shall set the TMSI expiration time by setting  
 9            TMSI\_EXP\_TIME<sub>s-p</sub> to TMSI\_EXP\_TIMER<sub>r</sub>. The mobile station shall disable  
 10          the full-TMSI timer. The mobile station shall then respond with a *TMSI*  
 11          *Assignment Completion Message* within T56m seconds.

12           **61-62.** *Universal Handoff Direction Message:* The layer 3Layer 3 shall send a “reset  
 13          waiting for order substate timer indication” to all Call Control instances. The  
 14          mobile station shall process the message as specified in 2.6.6.2.5.1.

15           **62-63.** *User Zone Reject Message:* The mobile station shall process this message as  
 16          specified in 2.6.9.2.2.

17           **63-64.** *User Zone Update Message:* The mobile station shall process this message as  
 18          specified in 2.6.9.2.2.

- 19            • If the mobile station receives a message that is not included in the above list, cannot  
               be processed, or requires a capability which is not supported, the mobile station  
               shall discard the message and send a *Mobile Station Reject Order* (ORDQ set to the  
               applicable reason code as determined from Table 2.7.3-1) within T56m seconds. If  
               the mobile station receives a Call Control message (see 2.6.10) which is directed to a  
               Call Control instance that does not exists, the mobile station shall send a *Mobile*  
               *Station Reject Order* with ORDQ field set to ‘00010001’ (no call control instance  
               present with the specified identifier) to the base station within T56m seconds.
- 20            • If the bits of TMSI\_CODE<sub>s-p</sub> are not all equal to ‘1’, and if System Time (in 80 ms  
               units) exceeds TMSI\_EXP\_TIME<sub>s-p</sub> × 2<sup>12</sup>, the mobile station shall set all the bits of  
               TMSI\_CODE<sub>s-p</sub> to ‘1’ within T66m seconds.
- 21            • If the full-TMSI timer expires or has expired, the mobile station shall set all the bits  
               of TMSI\_CODE<sub>s-p</sub> to ‘1’. The mobile station shall update the registration variables  
               as described in 2.6.5.5.2.5.

#### 37            2.6.4.4 Release Substate

38            In this substate, the mobile station confirms the disconnect of all calls and physical  
 39          channels.

1 Upon entering the *Release Substate*, the mobile station shall perform the following:

- 2 • The mobile station shall set the substate timer for T55m seconds.
- 3 • If the mobile station enters the *Release Substate* with a power-down indication, the  
4 mobile station shall send a *Release Order* (ORDQ = '00000001'), and shall perform  
5 power-down registration procedures (see 2.6.5.5.4.4). The layer 3Layer 3 shall  
6 terminate all Call Control instances.
- 7 • If the mobile station enters the *Release Substate* with a mobile station release  
8 indication, the mobile station shall send a *Release Order* (ORDQ = '00000000'), and  
9 set RETURN\_CAUSE<sub>s</sub> to '0000'. The mobile station may store the current service  
10 configuration (that is, parameters conveyed by both the Service Configuration  
11 information record and the Non-negotiable Service Configuration information  
12 record); if the mobile station stores the current service configuration, then the  
13 mobile station shall store the SYNC ID<sub>s</sub> corresponding to the current service  
14 configuration.
- 15 • If the mobile station enters the *Release Substate* with a service inactive indication,  
16 the mobile station shall send a *Release Order* (ORDQ = '00000010'), and set  
17 RETURN\_CAUSE<sub>s</sub> to '0000'.
- 18 • If the mobile station enters the *Release Substate* with a base station release  
19 indication, the mobile station shall send a *Release Order* (ORDQ = '00000000'). The  
20 layer 3Layer 3 shall terminate all Call Control instances. The mobile station may  
21 store the current service configuration (that is, parameters conveyed by both the  
22 Service Configuration information record and the Non-negotiable Service  
23 Configuration information record); if the mobile station stores the current service  
24 configuration, then the mobile station shall store the SYNC ID<sub>s</sub> corresponding to the  
25 current service configuration. The mobile station shall disable its transmitter, set  
26 RETURN\_CAUSE<sub>s</sub> to '0000', and shall enter the *System Determination Substate* of  
27 the *Mobile Station Initialization State* with a release indication (see 2.6.1.1).
- 28 • If the mobile station entered the *Release Substate* with a base station extended  
29 release indication, the mobile station shall perform the following:
  - 30 – The mobile station may store the current service configuration (that is,  
31 parameters conveyed by both the Service Configuration information record and  
32 the Non-negotiable Service Configuration information record); if the mobile  
33 station stores the current service configuration, then the mobile station shall  
34 store the SYNC ID<sub>s</sub> corresponding to the current service configuration.
  - 35 – The mobile station shall send an *Extended Release Response Message* to the  
36 base station.
  - 37 – The layer 3Layer 3 shall terminate all Call Control instances.
  - 38 – The mobile station shall disable its transmitter, set RETURN\_CAUSE<sub>s</sub> to '0000',  
39 and shall enter the *System Determination Substate* of the *Mobile Station*  
40 *Initialization State* with a release indication (see 2.6.1.1).

- 1     • If the mobile station entered the *Release Substate* with a base station extended  
 2       release with mini message indication, then the mobile station shall perform the  
 3       following:

4           The mobile station may store the current service configuration (that is,  
 5           parameters conveyed by both the Service Configuration information record and  
 6           the Non-negotiable Service Configuration information record); if the mobile  
 7           station stores the current service configuration, then the mobile station shall  
 8           store the SYNC\_IDs.

- 9     – The mobile station shall send an *Extended Release Response Mini Message* to the  
 10      base station.
- 11     – The layer-3Layer 3 shall terminate all Call Control instances.
- 12     – The mobile station shall disable its transmitter, set RETURN\_CAUSE<sub>s</sub> to '0000',  
 13       and shall enter the *System Determination Substate* of the *Mobile Station*  
 14       *Initialization State* with a release indication (see 2.6.1.1).
- 15     • If the mobile station enters the *Release Substate* with a redirection indication, the  
 16       mobile station shall send a *Release Order* (ORDQ = '00000000') and shall enter the  
 17       *System Determination Substate* of the *Mobile Station Initialization State* with a  
 18       redirection indication (see 2.6.1.1). The layer-3Layer 3 shall terminate all Call  
 19       Control instances.
- 20     • If the mobile station enters the *Release Substate* with an NDSS off indication, the  
 21       mobile station shall send a *Release Order* (ORDQ = '00000000'), and shall enter the  
 22       *System Determination Substate* of the *Mobile Station Initialization State* with an NDSS  
 23       off indication (see 2.6.1.1). The layer-3Layer 3 shall terminate all Call Control  
 24       instances.

25     While in the *Release Substate*, the mobile station shall perform the following:

- 26     • If the substate timer expires, the layer-3Layer 3 shall terminate all Call Control  
 27       instances, and the mobile station shall disable its transmitter and shall enter the  
 28       *System Determination Substate* of the *Mobile Station Initialization State* with a release  
 29       indication (see 2.6.1.1).
- 30     • The mobile station shall perform Forward Traffic Channel supervision as specified in  
 31       2.6.4.1.8. If a loss of the Forward Traffic Channel is declared, the layer-3Layer 3  
 32       shall terminate all Call Control instances, and shall enter the *System Determination*  
 33       *Substate* of the *Mobile Station Initialization State* with a release indication (see  
 34       2.6.1.1).
- 35     • The mobile station shall adjust its transmit power as specified in 2.1.2.3 of [2].
- 36     • The mobile station shall perform Forward Traffic Channel power control as specified  
 37       in 2.6.4.1.1.
- 38     • The mobile station shall perform handoff processing as specified in 2.6.6.

- 1     • If the Fundamental Channel is present, the mobile station shall transmit null traffic,  
2       except when transmitting signaling traffic, on the Reverse Fundamental Channel.
- 3     • The mobile station shall process Forward Traffic Channel signaling traffic and shall  
4       discard other types of Forward Traffic Channel traffic.
- 5     • The mobile station shall perform registration timer maintenance as specified in  
6       2.6.5.5.4.2.
- 7     • If Layer 3 receives a L2-Condition.Notification primitive from Layer 2 indicating an  
8       acknowledgment failure, the layer 3Layer 3 shall terminate all Call Control  
9       instances, and the mobile station shall disable its transmitter and enter the *System*  
10      *Determination Substate* of the *Mobile Station Initialization State* with a release  
11      indication (see 2.6.1.1).
- 12    • If the layer 3Layer 3 receives an “enter traffic channel substate indication” from a  
13      Call Control instance, the layer 3Layer 3 shall enter the *Traffic Channel substate*.
- 14    • If layer 3Layer 3 receives a ‘message rejected indication’ from a Call Control  
15      instance, mobile station shall send a *Mobile Station Reject Order* (ORDQ set to the  
16      applicable reason code as determined from Table 2.7.3-1) within T<sub>56m</sub> seconds as  
17      follows:
  - 18       - If P\_REV\_IN\_USE<sub>s</sub> is equal to or greater than seven, the mobile station shall  
19           include the CON\_REF\_INCL field with this message and shall perform the  
20           following: if the corresponding Call Control instance is identified by NULL, the  
21           mobile station shall either set the CON\_REF\_INCL field of the message to ‘0’ or  
22           set the CON\_REF\_INCL field to ‘1’ and set the CON\_REF field to the connection  
23           reference of the service option connection corresponding to this Call Control  
24           instance; otherwise, the mobile station shall set the CON\_REF\_INCL field of the  
25           message to ‘1’ and the CON\_REF field of the message to the connection reference  
26           of the service option connection corresponding to this Call Control instance.
- 27    • If the mobile station receives a message which is included in the following list, and if  
28      every message field value is within its permissible range, the mobile station shall  
29      process the message as described below and in accordance with the message’s  
30      action time (see 2.6.4.1.5):
  - 31       1. *Alert With Information Message*: If P\_REV\_IN\_USE<sub>s</sub> is less than seven, the layer  
32          Layer 3 shall deliver this message to the Call Control instance; otherwise, the  
33          layer 3Layer 3 shall deliver this message to the Call Control instance identified  
34          by NULL.
  - 35       2. *Candidate Frequency Search Control Message*: The mobile station shall process  
36          the message as specified in 2.6.6.2.5.1.
  - 37       3. *Candidate Frequency Search Request Message*: The mobile station shall process  
38          the message as specified in 2.6.6.2.5.1.
  - 39       4. *Data Burst Message*
  - 40       5. *Extended Alert With Information Message*: The mobile station shall perform the

1           following: If CON\_REF\_INCL<sub>r</sub> equals '0', the ~~layer 3~~<sub>Layer 3</sub> shall deliver this  
 2           message to the Call Control instance identified by NULL; otherwise, the ~~layer~~  
 3           ~~3~~<sub>Layer 3</sub> shall deliver this message to the Call Control instance identified by  
 4           CON\_REF<sub>r</sub>.

- 5         6. *Extended Handoff Direction Message*: The mobile station shall process the  
 6           message as specified in 2.6.6.2.5.1.
- 7         7. *Extended Neighbor List Update Message*: The mobile station shall process the  
 8           message as specified in 2.6.6.2.6.3.
- 9         8. *Extended Supplemental Channel Assignment Message*: The mobile station shall  
 10          process the message as specified in 2.6.6.2.5.1.
- 11         9. *General Handoff Direction Message*: The mobile station shall process the  
 12          message as specified in 2.6.6.2.5.1.
- 13         10. *In-Traffic System Parameters Message*: The mobile station shall process the  
 14          message as specified in 2.6.4.1.4.
- 15         11. *Local Control Order*
- 16         12. *Mobile Assisted Burst Operation Parameters Message*: The mobile station shall  
 17          process the message as specified in 2.6.6.2.5.1.
- 18         13. *Lock Until Power-Cycled Order*: The mobile station shall disable its transmitter  
 19          and record the reason for the *Lock Until Power-Cycled Order* in the mobile  
 20          station's semi-permanent memory (LCKRSN<sub>s-p</sub> equals the least-significant  
 21          four bits of ORDQ<sub>r</sub>). The mobile station should notify the user of the locked  
 22          condition. The ~~layer 3~~<sub>Layer 3</sub> shall terminate all Call Control instances. The  
 23          ~~layer 3~~<sub>Layer 3</sub> shall enter the *System Determination Substate* of the *Mobile*  
 24          *Station Initialization State* with a lock indication (see 2.6.1.1), and shall not enter  
 25          the *System Access State* again until after the next mobile station power-up or  
 26          until it has received an *Unlock Order*. This requirement shall take precedence  
 27          over any other mobile station requirement specifying entry to the *System Access*  
 28          *State*.
- 29         14. *Maintenance Required Order*: The mobile station shall record the reason for the  
 30          *Maintenance Required Order* in the mobile station's semi-permanent memory  
 31          (MAINTRSN<sub>s-p</sub> equals the least-significant four bits of ORDQ<sub>r</sub>). The mobile  
 32          station shall remain in the unlocked condition. The mobile station should  
 33          notify the user of the maintenance required condition.
- 34         15. *Mobile Station Registered Message*: The mobile station shall process the  
 35          message as specified in 2.6.5.5.4.3.
- 36         16. *Mobile Assisted Burst Operation Parameters Message*: The mobile station shall  
 37          process the message as specified in 2.6.6.2.5.1.
- 38         17. 16. *Neighbor List Update Message*: The mobile station shall process the message  
 39          as specified in 2.6.6.2.6.3.
- 40         18. 17. *Outer Loop Report Request Order*: The mobile station shall send the *Outer*

1           *Loop Report Message* in assured mode to the base station.

2       [19.18.](#) *Power Control Message*: The mobile station shall process the message as  
3           specified in 2.6.4.1.1.3.

4       [20.19.](#) *Power Control Parameters Message*: The mobile station shall process the  
5           message as specified in 2.6.4.1.1.2.

6       [21.20.](#) *Power Up Function Message*: The mobile station shall process the message as  
7           specified in 2.6.4.1.7.1.

8       [22.21.](#) *Power Up Function Completion Message*: The mobile station shall process the  
9           message as specified in 2.6.4.1.7.3.

10      [23.22.](#) *Release Order*: The mobile station shall disable its transmitter. The ~~layer~~  
11           ~~3Layer 3~~ shall terminate all Call Control instances. If the mobile station enters  
12           the *Release Substate* with a power-down indication, the mobile station may  
13           power down; otherwise, the mobile station shall enter the *System Determination*  
14           *Substate* of the *Mobile Station Initialization State* with a release indication (see  
15           2.6.1.1).

16      [24.23.](#) *Retrieve Parameters Message*: The mobile station shall send, within T<sub>56m</sub>  
17           seconds, a *Parameters Response Message*.

18      [25.24.](#) *Retry Order*: The mobile station shall process the order as follows:

- 19           • If RETRY\_TYPE<sub>r</sub> is equal to '000', the mobile station shall set  
20            RETRY\_DELAY<sub>s</sub>[RETRY\_TYPE] to '~~0~~<sup>0</sup>', where RETRY\_TYPE is equal to '001',  
21            '010', or '011'.
- 22           • If RETRY\_TYPE<sub>r</sub> is equal to '001', then the mobile station shall perform the  
23            following:
  - 24              – If RETRY\_DELAY<sub>r</sub> is equal to '00000000', then the mobile station shall  
25                set RETRY\_DELAY<sub>s</sub> [RETRY\_TYPE<sub>r</sub>] to 0.
  - 26              – If RETRY\_DELAY<sub>r</sub> is not equal to '00000000' the mobile station shall set  
27                RETRY\_DELAY<sub>s</sub>[RETRY\_TYPE<sub>r</sub>] as follows:
    - 28                + If the most significant bit of the RETRY\_DELAY<sub>r</sub> is 0, set  
29                  RETRY\_DELAY\_UNIT<sub>s</sub> to 1000ms. If the most significant bit of the  
30                  RETRY\_DELAY<sub>r</sub> is '1', set RETRY\_DELAY\_UNIT<sub>s</sub> to 60000ms.
    - 31                + The mobile station shall set RETRY\_DELAY\_VALUE<sub>s</sub> to the seven  
32                least significant bits of RETRY\_DELAY<sub>r</sub>.
    - 33                + The mobile station shall store the next system time 80 ms boundary +  
34                RETRY\_DELAY\_VALUE<sub>s</sub> × RETRY\_DELAY\_UNIT<sub>s</sub> ms as  
35                RETRY\_DELAY<sub>s</sub>[RETRY\_TYPE<sub>r</sub>].

36      [26.25.](#) *Service Option Control Message*: The mobile station shall process the  
37           message in accordance with the requirements for the active service subfunction  
38           (see 2.6.4.1.2.2).

39      [27.26.](#) *Service Option Control Order*: The mobile station shall process the message

1           in accordance with the requirements for the active service subfunction (see  
 2           2.6.4.1.2.2).

3           | **28.27.** *Service Redirection Message:* The mobile station shall disable its transmitter.  
 4           | If the mobile station enters the *Release Substate* with a power-down indication,  
 5           | the mobile station may power down (if powering down, the **layer 3****Layer 3** shall  
 6           | terminate all Call Control instances); otherwise, the mobile station shall process  
 7           | the message as follows:

- 8           • If RECORD\_TYPE<sub>r</sub> is '00000000', the mobile station shall do the following:
  - 9           – The mobile station shall set RETURN\_IF\_FAIL<sub>s</sub> = RETURN\_IF\_FAIL<sub>r</sub>.
  - 10           – If DELETE\_TMSI<sub>r</sub> is equal to '1', the mobile station shall set all the bits of  
 11           TMSI\_CODE<sub>s-p</sub> to '1'.
    - 12           – The mobile station shall disable the full-TMSI timer.
    - 13           – The **layer 3****Layer 3** shall terminate all Call Control instances, and shall  
 14           enter the *System Determination Substate of the Mobile Station Initialization  
 15           State* with an NDSS off indication (see 2.6.1.1).
  - 16           • If RECORD\_TYPE is not equal to '00000000', REDIRECT\_TYPE<sub>r</sub> is '1', and  
 17           the mobile station supports the band class and operating mode specified in  
 18           the message, the mobile station shall do the following:
    - 19           – The mobile station shall store the redirection record received in the  
 20           message as REDIRECT\_REC<sub>s</sub>.
    - 21           – The mobile station shall set RETURN\_IF\_FAIL<sub>s</sub> = RETURN\_IF\_FAIL<sub>r</sub>.
    - 22           – If DELETE\_TMSI<sub>r</sub> is equal to '1', the mobile station shall set all the bits of  
 23           TMSI\_CODE<sub>s-p</sub> to '1'.
      - 24           – The mobile station shall disable the full-TMSI timer.
      - 25           – The **layer 3****Layer 3** shall terminate all Call Control instances, and shall  
 26           enter the *System Determination Substate of the Mobile Station Initialization  
 27           State* with a redirection indication (see 2.6.1.1).
    - 28           • Otherwise, the mobile station shall discard the message and send a *Mobile  
 29           Station Reject Order* (ORDQ set to the applicable reason code as determined  
 30           from Table 2.7.3-1) within T<sub>56m</sub> seconds.

31           | **29.28.** *Status Request Message:* The mobile station shall send, within T<sub>56m</sub>  
 32           | seconds, a Status Response Message. If the message does not specify any  
 33           | qualification information (QUAL\_INFO\_TYPE<sub>r</sub> is equal to '00000000'), the mobile  
 34           | station shall include the requested information records in the *Status Response  
 35           Message*. If the message specifies a band class (QUAL\_INFO\_TYPE<sub>r</sub> is equal to  
 36           | '00000001'), the mobile station shall only include the requested information  
 37           | records for the specified band class (BAND\_CLASS<sub>r</sub>) in the *Status Response  
 38           Message*. If the message specifies a band class and an operating mode  
 39           | (QUAL\_INFO\_TYPE<sub>r</sub> is equal to '00000010'), the mobile station shall only  
 40           | include the requested information records for the specified band class

1 (BAND\_CLASS<sub>r</sub>) and operating mode (OP\_MODE<sub>r</sub>) in the *Status Response*  
 2 *Message*. If the message specifies a band class or a band class and an  
 3 operating mode which are not supported by the mobile station, the mobile  
 4 station shall send a *Mobile Station Reject Order* with ORDQ set to '00000110'  
 5 (message requires a capability that is not supported by the mobile station). If  
 6 the response to this message exceeds the allowable length, the mobile station  
 7 shall send a *Mobile Station Reject Order* with ORDQ set to '00001000' (response  
 8 message would exceed the allowable length). If the message specifies an  
 9 information record which is not supported by the mobile station for the  
 10 specified band class and operating mode, the mobile station shall send a *Mobile*  
 11 *Station Reject Order* with ORDQ set to '00001001' (information record is not  
 12 supported for the specified band class and operating mode).

13 **30.29. Status Request Order:** If CDMABAND<sub>s</sub> is equal to '00000', the mobile station  
 14 shall send, a *Status Message* within T<sub>56m</sub> seconds. The mobile station shall  
 15 respond with information corresponding to the current band class and  
 16 operating mode.

17 **31.30. Supplemental Channel Assignment Message:** The mobile station shall process  
 18 the message as specified in 2.6.6.2.5.1.

19 **32.31. TMSI Assignment Message:** The mobile station shall store the TMSI zone and  
 20 code as follows:

- 21 • The mobile station shall store the length of the TMSI zone field by setting  
     ASSIGNING\_TMSI\_ZONE\_LEN<sub>s-p</sub> to TMSI\_ZONE\_LEN<sub>r</sub>;
- 22 • The mobile station shall store the assigning TMSI zone number by setting the  
     ASSIGNING\_TMSI\_ZONE\_LEN<sub>s-p</sub> least significant octets of  
     ASSIGNING\_TMSI\_ZONE<sub>s-p</sub> to TMSI\_ZONE<sub>r</sub>, and
- 23 • The mobile station shall store the TMSI code by setting TMSI\_CODE<sub>s-p</sub> to  
     TMSI\_CODE<sub>r</sub>.

24 The mobile station shall set the TMSI expiration time by setting  
 25 TMSI\_EXP\_TIME<sub>s-p</sub> to TMSI\_EXP\_TIME<sub>r</sub>. The mobile station shall disable the  
 26 full-TMSI timer. The mobile station shall then respond with a *TMSI Assignment*  
 27 *Completion Message* within T<sub>56m</sub> seconds.

28 **33.32. Universal Handoff Direction Message:** The mobile station shall process the  
 29 message as specified in 2.6.6.2.5.1.

30 **34.33. User Zone Reject Message:** The mobile station shall process this message as  
 31 specified in 2.6.9.2.2.

32 **35.34. User Zone Update Message:** The mobile station shall process this message as  
 33 specified in 2.6.9.2.2.

- If the mobile station receives a message that is not included in the above list or cannot be processed, the mobile station shall discard the message and send a *Mobile Station Reject Order* (ORDQ set to the applicable reason code as determined from Table 2.7.3-1) within T<sub>56m</sub> seconds. If the mobile station receives a Call Control message (see 2.6.10) which is directed to a Call Control instance that does not exist, the mobile station shall send a *Mobile Station Reject Order* with ORDQ field set to '00010001' (no call control instance present with the specified identifier) to the base station within T<sub>56m</sub> seconds.
- If the bits of TMSI\_CODE<sub>s-p</sub> are not all equal to '1', and if System Time (in 80 ms units) exceeds TMSI\_EXP\_TIME<sub>s-p</sub> × 2<sup>12</sup>, the mobile station shall set all the bits of TMSI\_CODE<sub>s-p</sub> to '1' within T<sub>66m</sub> seconds.
- If the full-TMSI timer expires or has expired, the mobile station shall set all the bits of TMSI\_CODE<sub>s-p</sub> to '1'. The mobile station shall update the registration variables as described in 2.6.5.5.2.5.

## 2.6.5 Registration

### 2.6.5.1 Forms of Registration

Registration is the process by which the mobile station notifies the base station of its location, status, identification, slot cycle, and other characteristics. The mobile station informs the base station of its location and status so that the base station can efficiently page the mobile station when establishing a mobile station terminated call. For operation in the slotted mode, the mobile station supplies the SLOT\_CYCLE\_INDEX parameter so that the base station can determine which slots the mobile station is monitoring. The mobile station supplies the station class mark and the protocol revision number so that the base station knows the capabilities of the mobile station.

The CDMA system supports ten-eleven different forms of registration:

1. Power-up registration. The mobile station registers when it powers on, switches from using a different frequency block, switches from using a different band class, switches from using an alternative operating mode, or switches from using the analog system.
2. Power-down registration. The mobile station registers when it powers off if previously registered in the current serving system.
3. Timer-based registration. The mobile station registers when a timer expires.
4. Distance-based registration. The mobile station registers when the distance between the current base station and the base station in which it last registered exceeds a threshold.
5. Zone-based registration. The mobile station registers when it enters a new zone.
6. Parameter-change registration. The mobile station registers when certain of its stored parameters change or when it enters a new system.
7. Ordered registration. The mobile station registers when the base station requests it.

- 1       8. Implicit registration. When a mobile station successfully sends an *Origination*  
 2       *Message or Page Response Message*, the base station can infer the mobile station's  
 3       location. This is considered an implicit registration.
- 4       9. Traffic Channel registration. Whenever the base station has registration information  
 5       for a mobile station that has been assigned to a Traffic Channel, the base station  
 6       can notify the mobile station that it is registered.
- 7       10. User Zone Registration. The mobile station registers when it selects an active User  
 8       Zone (see 2.6.9.1.2).
- 9       11. Encryption re-sync required registration. The mobile station registers when  
 10      extended encryption is turned on and the mobile station determines that it can not  
 11      decrypt any messages from the base station (see 2.3.12.4.1.3).

12      The first five forms of registration, User Zone Registration, and Encryption re-sync required  
 13      registration, as a group, are called autonomous registration and are enabled by roaming  
 14      status (see 2.6.5.3). Parameter-change registration is independent of roaming status.  
 15      Ordered registration is initiated by the base station through an *Order Message*. Implicit  
 16      registration does not involve the exchange of any registration messages between the base  
 17      station and the mobile station. The base station can obtain registration information by  
 18      sending the *Status Request Message* to the mobile station on either the f-csch or the f-dsch.  
 19      The base station can obtain limited registration information by sending the *Status Request*  
 20      *Order* to the mobile station on the f-dsch. The mobile station can be notified that it is  
 21      registered through the *Mobile Station Registered Message*.

22      Any of the various forms of autonomous registration and parameter-change registration can  
 23      be enabled or disabled. The forms of registration that are enabled and the corresponding  
 24      registration parameters are communicated in the *System Parameters Message* on the Paging  
 25      Channel, or the *ANSI-41 System Parameters Message* on the Primary Broadcast Control  
 26      Channel.

27      In addition, the mobile station may enable or disable autonomous registration for each type  
 28      of roaming described in 2.6.5.3.

#### 29      2.6.5.1.1 Power-Up Registration

30      Power-up registration is performed when the mobile station is turned on. To prevent  
 31      multiple registrations when power is quickly turned on and off, the mobile station delays  
 32      T<sub>57m</sub> seconds before registering, after entering the *Mobile Station Idle State*.

33      The mobile station shall maintain a power-up/initialization timer. While the power-  
 34      up/initialization timer is active, the mobile station shall not make registration access  
 35      attempts.

36      Power-up registration is also performed when the mobile station changes to a different  
 37      operating mode, band class, serving system, or frequency block (see 2.6.5.5.1.1)

## 1    2.6.5.1.2 Power-Down Registration

2    Power-down registration is performed when the user directs the mobile station to power off.  
 3    If power-down registration is performed, the mobile station does not power off until after  
 4    completing the registration attempt.

5    The mobile station does not perform power-down registration if it has not previously  
 6    registered in the system that corresponds to the current SID<sub>S</sub> and NID<sub>S</sub> (see 2.6.5.5.2.4).

## 7    2.6.5.1.3 Timer-Based Registration

8    Timer-based registration causes the mobile station to register at regular intervals. Its use  
 9    also allows the system to automatically deregister mobile stations that did not perform a  
 10   successful power-down registration. Timer-based registration uses a Paging Channel or a  
 11   Forward Common Control Channel slot counter (equivalent to a timer with time increments  
 12   of 80 ms). Timer-based registration is performed when the counter reaches a maximum  
 13   value (REG\_COUNT\_MAX<sub>S</sub>) that is controlled by the base station via the REG\_PRD field of  
 14   the *System Parameters Message* or *ANSI-41 System Parameters Message*. The base station  
 15   disables timer-based registration by setting REG\_PRD to zero.

16   The mobile station shall maintain a timer-based registration counter (REG\_COUNT<sub>S</sub>). The  
 17   mobile station shall compute and store the timer expiration count (REG\_COUNT\_MAX<sub>S</sub>) as

$$18 \quad \text{REG\_COUNT\_MAX}_S = \lfloor 2^{\text{REG\_PRD}/4} \rfloor.$$

19   The mobile station shall maintain an indicator of timer-based registration timer enable  
 20   status (COUNTER\_ENABLED<sub>S</sub>).

21   The counter is reset when the mobile station powers on and when the mobile station  
 22   switches from different band classes, different serving systems, different frequency blocks,  
 23   and alternate operating modes. The counter is also reset after each successful registration.

24   Whenever the mobile station changes COUNTER\_ENABLED<sub>S</sub> from NO to YES, it shall set  
 25   REG\_COUNT<sub>S</sub> to a pseudorandom value between 0 and REG\_COUNT\_MAX<sub>S</sub> - 1, using the  
 26   pseudorandom number generator specified in 2.6.7.2.

27   If the mobile station is operating in the non-slotted mode, it shall increment the timer-  
 28   based registration counter once per 80 ms whenever COUNTER\_ENABLED<sub>S</sub> equals YES. If  
 29   the mobile station is operating in slotted mode, it may increment the timer-based  
 30   registration counter when it begins to monitor the Paging Channel (see 2.6.2.1.1.3) or the  
 31   Forward Common Control Channel. A mobile station operating in the slotted mode shall  
 32   increment the counter by the same amount that the counter would have been incremented  
 33   if the mobile station had been operating in the non-slotted mode.<sup>11</sup>

---

11 For example, if the mobile station uses a 2.56 second slot cycle, then it may increment the counter by 32 every time it becomes active.

1    2.6.5.1.4 Distance-Based Registration

2    Distance-based registration causes a mobile station to register when the distance between  
 3    the current base station and the base station in which it last registered exceeds a  
 4    threshold. The mobile station determines that it has moved a certain distance by  
 5    computing a distance measure based on the difference in latitude and longitude between  
 6    the current base station and the base station where the mobile station last registered. If  
 7    this distance measure exceeds the threshold value, the mobile station registers.

8    The mobile station stores the base station latitude (BASE\_LAT\_REG<sub>s-p</sub>), the base station  
 9    longitude (BASE\_LONG\_REG<sub>s-p</sub>) and the registration distance (REG\_DIST\_REG<sub>s-p</sub>), of the  
 10   base station to which the first access probe (for a *Registration Message*, *Origination*  
 11   *Message*, or *Page Response Message* sent on the r-csch) was transmitted after entering the  
 12   *System Access State*. The mobile station shall compute the current base station's distance  
 13   from the last registration point (DISTANCE) as:

$$14 \quad DISTANCE = \lfloor \frac{\sqrt{(\Delta lat)^2 + (\Delta long)^2}}{16} \rfloor,$$

15   where

$$16 \quad \Delta lat = BASE\_LAT_s - BASE\_LAT\_REG_{s-p}$$

17   and

$$18 \quad \Delta long = (BASE\_LONG_s - BASE\_LONG\_REG_{s-p}) \times \cos(\pi/180 \times BASE\_LAT\_REG_{s-p}/14400).$$

19   The mobile station shall compute DISTANCE with an error of no more than  $\pm 5\%$  of its true  
 20   value when  $|BASE\_LAT\_REG_{s-p}/14400|$  is less than 60 and with an error of no more than  
 21    $\pm 7\%$  of its true value when  $|BASE\_LAT\_REG_{s-p}/14400|$  is between 60 and 70.<sup>12</sup>

22   2.6.5.1.5 Zone-Based Registration

23   Registration zones are groups of base stations within a given system and network. A base  
 24   station's zone assignment is identified by the REG\_ZONE field of the *System Parameters*  
 25   *Message* or *ANSI-41 System Parameters Message*.

26   Zone-based registration causes a mobile station to register whenever it ~~moves into~~  
 27   ~~determines it is in~~ a new zone ([see 2.6.5.5.2.1](#)), not on its internally stored list of visited  
 28   registration zones. A zone is added to the list whenever a registration (including implicit  
 29   registration) occurs, and is deleted upon expiration of a timer. After a system access,  
 30   timers are enabled for every zone except one that was successfully registered by the access.

31   A mobile station can be registered in more than one zone. Zones are uniquely identified by  
 32   a zone number (REG\_ZONE) plus the SID and NID of the zone.

---

12 BASE\_LAT and BASE\_LONG are given in units of 1/4 seconds. BASE\_LAT/14400 and  
 BASE\_LONG/14400 are in units of degrees.

1 The mobile station shall store a list of the zones in which the mobile station has registered  
 2 (*ZONE\_LIST<sub>S</sub>*). Each entry in *ZONE\_LIST<sub>S</sub>* shall include the zone number (*REG\_ZONE*) and  
 3 the (*SID*, *NID*) pair for the zone. The mobile station shall be capable of storing at least *N9m*  
 4 entries in *ZONE\_LIST<sub>S</sub>*. A base station shall be considered to be in *ZONE\_LIST<sub>S</sub>* only if the  
 5 base station's *REG\_ZONE*, *SID* and *NID* are found in an entry in *ZONE\_LIST<sub>S</sub>*. The mobile  
 6 station provides storage for one entry of *ZONE\_LIST<sub>S</sub>* in semi-permanent memory,  
 7 *ZONE\_LIST<sub>S-p</sub>* (see 2.3.4).

8 The mobile station shall maintain a zone list entry timer for each entry in *ZONE\_LIST<sub>S</sub>*.  
 9 When an entry in *ZONE\_LIST<sub>S</sub>* is removed from the list, the corresponding zone list entry  
 10 timer shall be disabled. The timer duration shall be as determined from the stored value of  
 11 *ZONE\_TIMER<sub>S</sub>* using Table 3.7.2.3.2.1-1. The mobile station shall provide a means to  
 12 examine each timer's value while the timer is active, so that the age of list entries can be  
 13 compared.

14 If the mobile station supports Band Class 1, Band Class 2, Band Class 4, Band Class 5, ~~or~~  
 15 Band Class 7, or Band Class 10, the mobile station shall maintain an identifier of the  
 16 frequency block for each entry in *ZONE\_LIST<sub>S</sub>* (see 2.1.1.1 of [2]). When the mobile station  
 17 adds a zone to *ZONE\_LIST<sub>S</sub>*, the mobile station shall include the identifier for the frequency  
 18 block.<sup>13</sup>

19 If the mobile station supports multiple band classes, the mobile station shall maintain an  
 20 identifier of the band class for each entry in *ZONE\_LIST<sub>S</sub>* (see 2.1.1.1 of [2]). When the  
 21 mobile station adds a zone to *ZONE\_LIST<sub>S</sub>*, the mobile station shall include the identifier for  
 22 the band class.

23 The base station controls the maximum number of zones in which a mobile station may be  
 24 considered registered, by means of the *TOTAL\_ZONES* field of the *System Parameters*  
 25 *Message* or *ANSI-41 System Parameters Message*. When an entry is added to the zone list,  
 26 or if *TOTAL\_ZONES* is decreased, the mobile station removes entries from the zone list if  
 27 there are more entries than allowed by the setting of *TOTAL\_ZONES*.

28 Whenever *ZONE\_LIST<sub>S</sub>* contains more than *TOTAL\_ZONES<sub>S</sub>* entries, the mobile station shall  
 29 delete the excess entries according to the following rules:

- 30 • If *TOTAL\_ZONES<sub>S</sub>* is equal to zero, the mobile station shall delete all entries.
- 31 • If *TOTAL\_ZONES<sub>S</sub>* is not equal to zero, the mobile station shall delete those entries  
 32 having active zone list entry timers, starting with the oldest entry, as determined by  
 33 the timer values, and continuing in order of decreasing age until no more than  
 34 *TOTAL\_ZONES<sub>S</sub>* entries remain.

35 The mobile station shall store a list of the systems/networks in which the mobile station  
 36 has registered (*SID\_NID\_LIST<sub>S</sub>*). Each entry in *SID\_NID\_LIST<sub>S</sub>* shall include the (*SID*, *NID*)  
 37 pair for the system/network. The mobile station shall be capable of storing *N10m* entries in

13 The mobile station need not maintain a separate identifier for Band Class 0, as the least significant bit of the *SID* identifies the serving system.

1 SID\_NID\_LIST<sub>s</sub>. A base station shall be considered to be in the SID\_NID\_LIST<sub>s</sub> only if the  
 2 base station's SID and NID are found in an entry in SID\_NID\_LIST<sub>s</sub>. The mobile station  
 3 shall provide storage for one entry of SID\_NID\_LIST<sub>s</sub> in semi-permanent memory  
 4 (SID\_NID\_LIST<sub>s-p</sub>).

5 If the mobile station supports Band Class 1, Band Class 2, Band Class 4, Band Class 5, ~~or~~  
 6 Band Class 7, or Band Class 10, the mobile station shall maintain an identifier of the  
 7 frequency block for each entry in SID\_NID\_LIST<sub>s</sub> (see 2.1.1.1 of [2]). When the mobile  
 8 station adds an entry to SID\_NID\_LIST<sub>s</sub>, the mobile station shall include the identifier for  
 9 the frequency block.

10 If the mobile station supports multiple band classes, the mobile station shall maintain an  
 11 identifier of the band class for each entry in SID\_NID\_LIST<sub>s</sub> (see 2.1.1.1 of [2]). When the  
 12 mobile station adds an entry to SID\_NID\_LIST<sub>s</sub>, the mobile station shall include the  
 13 identifier for the band class.

14 The mobile station shall maintain a SID/NID list entry timer for each entry in  
 15 SID\_NID\_LIST<sub>s</sub>. When an entry in SID\_NID\_LIST<sub>s</sub> is removed from the list, the  
 16 corresponding SID/NID list entry timer shall be disabled. The timer duration shall be as  
 17 determined from the stored value of ZONE\_TIMER<sub>s</sub> using Table 3.7.2.3.2.1-1. The mobile  
 18 station shall provide a means to examine each timer's value while the timer is active, so  
 19 that the age of list entries can be compared.

20 Whenever SID\_NID\_LIST<sub>s</sub> contains more than N<sub>10m</sub> entries, the mobile station shall delete  
 21 the excess entries according to the following rule:

- 22     • The mobile station shall delete those entries having active SID/NID list entry timers,  
 23       starting with the oldest entry, as determined by the timer values, and continuing in  
 24       order of decreasing age.

25 Whenever MULT\_SIDS<sub>s</sub> is equal to '0' and SID\_NID\_LIST contains entries with different  
 26 SIDs, the mobile station shall delete the excess entries according to the following rules:

- 27     • If the SID/NID entry timer for any entry is disabled, the mobile station shall delete  
 28       all entries not having the same SID as the entry whose timer is disabled;
- 29     • Otherwise, the mobile station shall delete all entries not having the same SID as the  
 30       newest entry in SID\_NID\_LIST, as determined by the timer values.

31 Whenever MULT\_NIDS<sub>s</sub> is equal to '0', and SID\_NID\_LIST contains more than one entry for  
 32 any SID, the mobile station shall delete the excess entries for each SID according to the  
 33 following rules:

- 34     • If the SID/NID entry timer for any entry is disabled, the mobile station shall delete  
 35       all entries for that SID except the entry whose timer is disabled;
- 36     • For all other SIDs, the mobile station shall delete all entries for each SID except the  
 37       newest entry, as determined by the timer values.

### 38     2.6.5.1.6 Parameter-Change Registration

39     Parameter-change registration is performed when a mobile station modifies any of the  
 40 following stored parameters:

- The preferred slot cycle index (SLOT\_CYCLE\_INDEX<sub>p</sub>)
- The station class mark (SCM<sub>p</sub>)
- The call termination enabled indicators (MOB\_TERM\_HOME<sub>p</sub>, MOB\_TERM\_FOR\_SID<sub>p</sub>, and MOB\_TERM\_FOR\_NID<sub>p</sub>)

Parameter-change registration is also performed when any of the following capabilities supported by the mobile station changes:

- The band classes
- The power classes
- The radio configurations
- The operating modes
- Transmit diversity (OTD or STS)
- Quick Paging Channel
- Spreading Rate 3 common channels support
- Encryption capability

Parameter-change registration is performed whenever there is no entry in the mobile station's SID\_NID\_LIST<sub>s</sub> that matches the base station's SID and NID.

Parameter-change registration is independent of the roaming status of the mobile station.<sup>14</sup>

Whenever a parameter changes, the mobile station shall delete all entries from SID\_NID\_LIST<sub>s</sub>.

#### 2.6.5.1.7 Ordered Registration

The base station can command the mobile station to register by sending a *Registration Request Order*. Ordered registration is performed in the *Mobile Station Order and Message Processing Operation* (2.6.2.4). Requirements are specified in 2.6.5.5.2.3.

#### 2.6.5.1.8 Implicit Registration

Whenever an *Origination Message* or *Page Response Message* is sent, the base station can infer the location of the mobile station. This is considered an implicit registration. Requirements are specified in 2.6.5.5.3.

#### 2.6.5.1.9 Traffic Channel Registration

While a mobile station is assigned a Traffic Channel, the mobile station is notified that it is registered through the *Mobile Station Registered Message*. Requirements are specified in 2.6.5.5.4.3.

<sup>14</sup> The indicator REG\_ENABLED does not govern parameter-change registration.

1    2.6.5.1.10 User Zone Registration

2    User Zone registration is performed when the mobile station selects an active User Zone  
3    (see 2.6.9.2.1).

4    [2.6.5.1.11 Encryption Re-sync Required Registration](#)

5    Encryption re-sync required registration is performed when the mobile station determines  
6    that it can not decrypt any message from the base station (see 2.3.12.4.1.3). This type of  
7    registration is needed for the mobile station to recover from any encryption out-of-sync  
8    scenario.

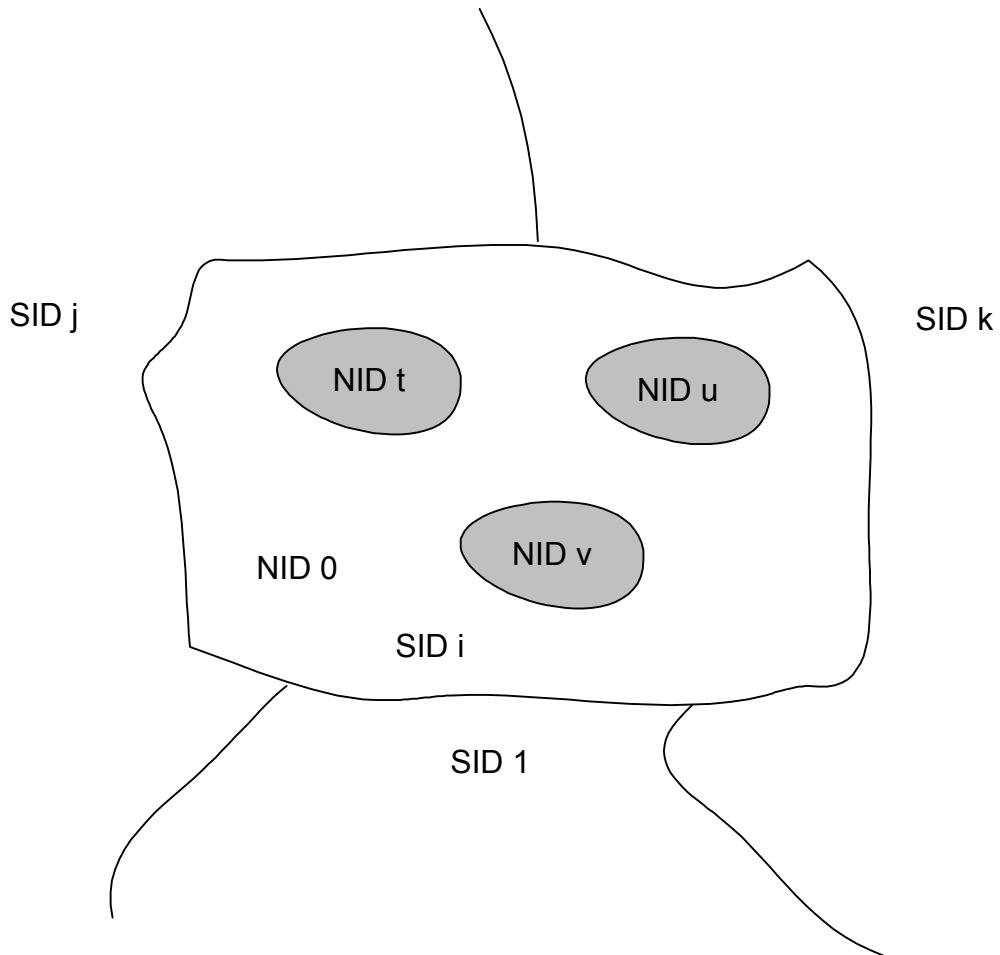
9    2.6.5.2 Systems and Networks

10   A base station is a member of a cellular or PCS system and a network. A network is a  
11   subset of a system.

12   Systems are labeled with an identification called the system identification or SID; networks  
13   within a system are given a network identification or NID. A network is uniquely identified  
14   by the pair (SID, NID). The SID number 0 is a reserved value. The NID number 0 is a  
15   reserved value indicating all base stations that are not included in a specific network. The  
16   NID number 65535 ( $2^{16}-1$ ) is a reserved value the mobile station may use for roaming  
17   status determination (see 2.6.5.3) to indicate that the mobile station considers the entire  
18   SID (regardless of NID) as home (non-roaming).

19   Figure 2.6.5.2-1 shows an example of systems and networks. SID i contains three  
20   networks labeled t, u, and v. A base station in system i that is not in one of these three  
21   networks is in NID 0.

22



**Figure 2.6.5.2-1. Systems and Networks Example**

### 2.6.5.3 Roaming

The mobile station has a list of one or more home (non-roaming) (SID, NID) pairs. A mobile station is roaming if the stored ( $SID_s$ ,  $NID_s$ ) pair (received in the *System Parameters Message* on the Paging Channel, or the *ANSI-41 System Parameters Message* on the Primary Broadcast Control Channel) does not match one of the mobile station's non-roaming (SID, NID) pairs. Two types of roaming are defined: A mobile station is a foreign NID roamer if the mobile station is roaming and there is some (SID, NID) pair in the mobile station's (SID, NID) list for which SID is equal to  $SID_s$ . A mobile station is a foreign SID roamer if there is no (SID, NID) pair in the mobile station's (SID, NID) list for which SID is equal to  $SID_s$ <sup>15</sup>.

<sup>15</sup> For example, suppose a mobile station has the following SID, NID list: (2, 3), (2, 0), (3, 1). If the base station (SID, NID) pair is (2, 3), then the mobile station is not roaming because the (SID, NID)

(footnote continued on next page)

1 The mobile station may use the special NID value 65535 to indicate that the mobile station  
 2 considers all NIDs within a SID to be non-roaming (i.e., that the mobile station is not  
 3 roaming when operating with any base station in that system).

4 The mobile station shall store three 1-bit parameters in its permanent memory (see 2.3.8).  
 5 These parameters are MOB\_TERM\_HOME<sub>p</sub>, MOB\_TERM\_FOR\_SID<sub>p</sub>, and MOB\_TERM-  
 6 \_FOR\_NID<sub>p</sub>. The mobile station shall set MOB\_TERM\_HOME<sub>p</sub> to '1' if the mobile station is  
 7 configured to receive mobile station terminated calls when using a home (SID, NID) pair;  
 8 otherwise, the mobile station shall set MOB\_TERM\_HOME<sub>p</sub> to '0'. The mobile station shall  
 9 set MOB\_TERM\_FOR\_SID<sub>p</sub> to '1' if the mobile station is configured to receive mobile station  
 10 terminated calls when it is a foreign SID roamer; otherwise MOB\_TERM\_FOR\_SID<sub>p</sub> shall be  
 11 set to '0'. The mobile station shall set MOB\_TERM\_FOR\_NID<sub>p</sub> to '1' if the mobile station is  
 12 configured to receive mobile station terminated calls when it is a foreign NID roamer;  
 13 otherwise the mobile station shall set MOB\_TERM\_FOR\_NID<sub>p</sub> to '0'.

14 The mobile station determines the registration status using these parameters and the  
 15 HOME\_REG, FOR\_NID\_REG, and FOR\_SID\_REG fields of the *System Parameters Message*  
 16 or *ANSI-41 System Parameters Message*.

17 The mobile station shall store a mobile station call termination enabled indicator,  
 18 MOB\_TERM<sub>s</sub>. The mobile station shall set MOB\_TERM<sub>s</sub> to YES if any of the following  
 19 conditions is met:

- 20 • The mobile station is not roaming, and MOB\_TERM\_HOME<sub>p</sub> is equal to '1'; or
- 21 • The mobile station is a foreign NID roamer and MOB\_TERM\_FOR\_NID<sub>p</sub> is equal to  
 22 '1'; or
- 23 • The mobile station is a foreign SID roamer and MOB\_TERM\_FOR\_SID<sub>p</sub> is equal to  
 24 '1'; otherwise the mobile station shall set MOB\_TERM<sub>s</sub> to NO.

25 The mobile station shall store a registration status indicator, REG\_ENABLED<sub>s</sub>. The mobile  
 26 station shall set the indicator REG\_ENABLED<sub>s</sub> to YES if any of the following conditions is  
 27 met for the mobile station:

- 28 • The mobile station is not roaming, and both HOME\_REG<sub>s</sub> and MOB\_TERM\_HOME<sub>p</sub>  
 29 are equal to '1'; or
- 30 • The mobile station is a foreign NID roamer and both FOR\_NID\_REG<sub>s</sub> and  
 31 MOB\_TERM\_FOR\_NID<sub>p</sub> are equal to '1'; or
- 32 • The mobile station is a foreign SID roamer and both FOR\_SID\_REG<sub>s</sub> and  
 33 MOB\_TERM\_FOR\_SID<sub>p</sub> are equal to '1'; otherwise the mobile station shall set  
 34 REG\_ENABLED<sub>s</sub> to NO.

---

pair is in the list. If the base station (SID, NID) pair is (2, 7), then the mobile station is a foreign NID roamer, because the SID 2 is in the list, but the (SID, NID) pair (2, 7) is not in the list. If the base station (SID, NID) pair is (4, 0), then the mobile station is a foreign SID roamer, because SID 4 is not in the list.

1 The mobile station performs autonomous registrations if REG\_ENABLED<sub>s</sub> is YES.

2 2.6.5.4 Registration Timers and Indicators

3 The mobile station shall provide the following registration timers:

- 4 • Power-up/initialization timer (see 2.6.5.1.1).
- 5 • Timer-based registration timer (see 2.6.5.1.3).
- 6 • Zone list entry timers (see 2.6.5.1.5).
- 7 • SID/NID list entry timers (see 2.6.5.1.5).

8 The mobile station shall provide a means of enabling and disabling each timer. When a  
9 timer is disabled, it shall not be considered expired. A timer that has been enabled is  
10 referred to as active.

11 2.6.5.5 Registration Procedures

12 2.6.5.5.1 Actions in the Mobile Station Initialization State

13 2.6.5.5.1.1 Power-Up or Change to a Different Operating Mode, Band Class, Serving  
14 System, or Frequency Block

15 Upon power-up, the mobile station shall perform the following actions:

- 16 • Delete all entries of ZONE\_LIST<sub>s</sub>.
- 17 • If ZONE\_LIST<sub>s-p</sub> contains an entry, copy the entry to ZONE\_LIST<sub>s</sub> and disable the  
18 corresponding entry timer.
- 19 • Delete all entries of SID\_NID\_LIST<sub>s</sub>.
- 20 • If SID\_NID\_LIST<sub>s-p</sub> contains an entry, copy the entry to SID\_NID\_LIST<sub>s</sub> and disable  
21 the corresponding entry timer.
- 22 • Set the registered flag (REGISTERED<sub>s</sub>) to NO.
- 23 • Set timer-based registration enable status (COUNTER\_ENABLED<sub>s</sub>) to NO.
- 24 • Set autonomous registration enable status (REG\_ENABLED<sub>s</sub>) to NO.
- 25 • Set RETURN\_CAUSE<sub>s</sub> to '0000'.
- 26 • Set ENC\_KEY<sub>s</sub> to NULL.
- 27 • Set D SIG ENCRYPT MODE<sub>s</sub> and C SIG ENCRYPT MODE<sub>s</sub> to '000'.

28 Upon switching from using CDMA in a different band class, from using CDMA in a different  
29 serving system in a band class that supports multiple serving systems (e.g., Band Class 0),  
30 from using CDMA in a different frequency block in a band class that supports frequency  
31 block allocations (e.g. Band Class 1, ~~Band Class 4~~), or from using the 800 MHz analog  
32 system, the mobile station shall perform the following actions:

- 33 • Set timer-based registration enable status (COUNTER\_ENABLED<sub>s</sub>) to NO.
- 34 • Set autonomous registration enable status (REG\_ENABLED<sub>s</sub>) to NO.

- 1     • Set RETURN\_CAUSE<sub>s</sub> to '0000'.
- 2     • Set the registered flag (REGISTERED<sub>s</sub>) to NO.
- 3     • Set ENC\_KEY<sub>s</sub> to NULL.

4     2.6.5.5.1.2 Timer Maintenance

5     While in the *Mobile Station Initialization State*, the mobile station shall update all active  
 6     registration timers (see 2.6.5.4). If any timer expires while in this state, the mobile station  
 7     shall preserve the expiration status so that further action can be taken in the *Mobile Station*  
 8     *Idle State*.

9     2.6.5.5.1.3 Entering the Mobile Station Idle State

10    Before entering the *Mobile Station Idle State* from the *Mobile Station Initialization State*, the  
 11    mobile station shall perform the following action:

- 12    • If REGISTERED<sub>s</sub> is equal to NO, enable the power-up/initialization timer with an  
 13      expiration time of T57m seconds (see 2.6.5.1.1) only when the mobile station is  
 14      entering this state with a power-up indication.

15    2.6.5.5.2 Actions in the Mobile Station Idle State

16    Requirements in this section and its subsections apply only when the mobile station is in  
 17    the *Mobile Station Idle State*.

18    2.6.5.5.2.1 Idle Registration Procedures

19    These procedures are performed whenever the mobile station is in the *Mobile Station Idle*  
 20    *State* (see 2.6.2.1.3).

21    While in the *Mobile Station Idle State*, the mobile station shall update all active registration  
 22    timers (see 2.6.5.4).

23    If the power-up/initialization timer has expired or is disabled, the mobile station shall  
 24    perform the following actions in the order given. If any action necessitates a registration,  
 25    the mobile station shall enter the *Update Overhead Information Substate* of the *System*  
 26    *Access State* (see 2.6.3) with a registration indication.

- 27    1. The timer-based registration timer shall be enabled (COUNTER\_ENABLED<sub>s</sub> = YES)  
 28      and the timer count (REG\_COUNT<sub>s</sub>) shall be set to a pseudorandom number as  
 29      specified in 2.6.5.1.3, if the following conditions are met:
  - 30       a. COUNTER\_ENABLED<sub>s</sub> is equal to NO; and
  - 31       b. The stored configuration parameters are current (see 2.6.2.2); and
  - 32       c. REG\_ENABLED<sub>s</sub> is equal to YES; and
  - 33       d. REG\_PRD<sub>s</sub> is not equal to zero.
- 34    2. If any zone list entry timer (see 2.6.5.1.5) has expired, the mobile station shall delete  
 35      the corresponding entry from ZONE\_LIST<sub>s</sub>.

3. If any SID/NID list entry timer (see 2.6.5.1.5) has expired, the mobile station shall  
4. delete the corresponding entry from SID\_NID\_LIST<sub>S</sub>.
5. The mobile station shall perform power-up registration, as specified in 2.6.5.1.1, if  
6. all the following conditions are met:
  7. a. POWER\_UP\_REG<sub>S</sub> is equal to '1'; and
  8. b. The stored configuration parameters are current (see 2.6.2.2); and
  9. c. REGISTERED<sub>S</sub> is equal to NO, and
  10. d. REG\_ENABLED<sub>S</sub> is equal to YES.
11. The mobile station shall perform parameter-change registration (see 2.6.5.1.6) if all  
12. the following conditions are met:
  13. a. PARAMETER\_REG<sub>S</sub> is equal to '1'; and
  14. b. The stored configuration parameters are current (see 2.6.2.2); and
  15. c. There is no entry of SID\_NID\_LIST<sub>S</sub> whose SID and NID fields match the stored  
16. SID<sub>S</sub> and NID<sub>S</sub>.
17. The mobile station shall perform timer-based registration (see 2.6.5.1.3) if all the  
18. following conditions are met:
  19. a. COUNTER\_ENABLED<sub>S</sub> is equal to YES; and
  20. b. The stored configuration parameters are current (see 2.6.2.2); and
  21. c. REG\_ENABLED<sub>S</sub> is equal to YES; and
  22. d. REG\_COUNT<sub>S</sub> is greater than or equal to REG\_COUNT\_MAX<sub>S</sub>.
23. The mobile station shall perform distance-based registration (see 2.6.5.1.4) if all the  
24. following conditions are met:
  25. a. REG\_DIST<sub>S</sub> is not equal to zero; and
  26. b. The stored configuration parameters are current (see 2.6.2.2); and
  27. c. REG\_ENABLED<sub>S</sub> is equal to YES; and
  28. d. The current base station's distance from the base station in which the mobile  
29. station last registered (see 2.6.5.1.4) is greater than or equal to  
REG\_DIST\_REG<sub>S-p</sub>.
30. The mobile station shall perform zone-based registration (see 2.6.5.1.5) if all the  
31. following conditions are met:
  32. a. TOTAL\_ZONES<sub>S</sub> is not equal to zero; and
  33. b. The stored configuration parameters are current (see 2.6.2.2); and
  34. c. REG\_ENABLED<sub>S</sub> is equal to YES; and
  35. d. There is no entry of ZONE\_LIST<sub>S</sub> whose SID, NID and REG\_ZONE fields match  
the stored SID<sub>S</sub>, NID<sub>S</sub> and REG\_ZONE<sub>S</sub>.

1       9. The mobile station shall perform User Zone registration (see 2.6.2.5.1.10) if it selects  
 2       an active User Zone (see 2.6.9.1.2).

3       10. The mobile station shall perform encryption re-sync required registration (see  
 4       2.6.5.1.11) if all the following conditions are met:

- 5        a. REG\_ENCRYPT RESYNC is equal to YES; and  
 6        b. None of the above registrations have been performed since the last entering of  
 7        the Mobile Station Idle State.

8       2.6.5.5.2.2 Processing the Registration Fields of the System Parameters Message and ANSI-  
 9       41 System Parameters Message

10      When the mobile station processes the *System Parameters Message* or *ANSI-41 System  
 11     Parameters Message*, it shall perform the following actions:

- 12     1. If REG\_PRD<sub>s</sub> is equal to zero, the mobile station shall set COUNTER\_ENABLED<sub>s</sub> to  
 13       NO.
- 14     2. If REG\_PRD<sub>s</sub> is not equal to zero, the mobile station shall set REG\_COUNT\_MAX<sub>s</sub> as  
 15       specified in 2.6.5.1.3.
- 16     3. The mobile station shall update its roaming status and set REG\_ENABLED<sub>s</sub> as  
 17       specified in 2.6.5.3.
- 18     4. If ZONE\_LIST<sub>s</sub> contains more than TOTAL\_ZONES<sub>s</sub> entries, the mobile station shall  
 19       delete the excess entries according to the rules specified in 2.6.5.1.5.
- 20     5. If MULT\_SIDS<sub>s</sub> is equal to '0' and SID\_NID\_LIST contains entries with different  
 21       SIDs, delete the excess entries according to the rules specified in 2.6.5.1.5.
- 22     6. If MULT\_NIDS<sub>s</sub> is equal to '0' and SID\_NID\_LIST contains more than one entry for  
 23       any SID, delete the excess entries according to the rules specified in 2.6.5.1.5.

24       2.6.5.5.2.3 Ordered Registration

25      Ordered registration is performed after receiving a *Registration Request Order* while in the  
 26     *Mobile Station Order and Message Processing Operation* (see 2.6.2.4).

27      The mobile station shall enter the *Update Overhead Information Substate* of the *System  
 28     Access State* with a registration indication within T<sub>33m</sub> seconds after the *Registration  
 29     Request Order* is received.

30       2.6.5.5.2.4 Power Off

31      These procedures are performed when the mobile station is directed by the user to power  
 32       off.

33      The mobile station shall perform the following actions:

- 34       • If an entry of ZONE\_LIST<sub>s</sub> does not have an active timer, copy that entry to  
 35       ZONE\_LIST<sub>s-p</sub>; otherwise, delete any entry in ZONE\_LIST<sub>s-p</sub>.

- 1     • If an entry of SID\_NID\_LIST<sub>s</sub> does not have an active timer, copy that entry to  
 2       SID\_NID\_LIST<sub>s-p</sub>; otherwise, delete any entry in SID\_NID\_LIST<sub>s-p</sub>.

3     The mobile station shall perform power-down registration (see 2.6.5.1.2) by entering the  
 4       *System Access State* with a registration indication within T<sub>33m</sub> seconds after the user  
 5       directs the mobile station to power off, if all the following conditions are true:

- 6       • REG\_ENABLED<sub>s</sub> equals YES; and  
 7       • POWER\_DOWN\_REG<sub>s</sub> equals ‘1’; and  
 8       • There is an entry of SID\_NID\_LIST<sub>s</sub> for which the SID and NID fields are equal to  
 9         SID<sub>s</sub> and NID<sub>s</sub>; and  
 10      • The power-up/initialization timer (see 2.6.5.1.1) is disabled or has expired.

11     2.6.5.2.5 Full-TMSI Timer Expiration

12     When the mobile station sets all the bits of TMSI\_CODE<sub>s-p</sub> to ‘1’ upon expiration of the full-  
 13       TMSI timer (see 2.6.2), the mobile station shall delete all entries from SID\_NID\_LIST<sub>s</sub> and  
 14       ZONE\_LIST<sub>s</sub>.

15     2.6.5.3 Actions in the System Access State

16     Requirements in this section and its subsections apply only when the mobile station is in  
 17       the *System Access State*.

18     2.6.5.3.1 Successful Access, Registration, or Implicit Registration

19     These procedures shall be performed after the mobile station receives confirmation of  
 20       delivery of a *Registration Message*, *Origination Message*, or *Page Response Message* sent on  
 21       the r-csch (see 2.6.3.1.2).

- 22       • Disable the power-up/initialization timer (see 2.6.5.1.1).
- 23       • If the mobile station supports the 800 MHz analog mode, set the First-Idle ID status  
 24         to enabled (see [2.6.3.11\[6\]](#)).
- 25       • Set DIGITAL\_REG<sub>s-p</sub> to ‘00000001’.
- 26       • Set REG\_COUNT<sub>s</sub> to zero.
- 27       • Set REGISTERED<sub>s</sub> to YES.
- 28       • Delete all entries from ZONE\_LIST<sub>s</sub> belonging to a different band class (see 2.1.1.1 of  
 29         [2]) than CDMABAND<sub>s</sub>.
- 30       • If CDMABAND<sub>s</sub> = ‘00000’ or CDMABAND<sub>s</sub> = ‘00011’, delete all entries from  
 31         ZONE\_LIST<sub>s</sub> that have a SID from a different serving system than SERVSYS<sub>s</sub>.
- 32       • If CDMABAND<sub>s</sub> = ‘00001’, CDMABAND<sub>s</sub> = ‘00010’, CDMABAND<sub>s</sub> = ‘00100’,  
 33         CDMABAND<sub>s</sub> = ‘00101’, ~~or~~-CDMABAND<sub>s</sub> = ‘00111’, or CDMABAND<sub>s</sub> = ‘01010’, delete  
 34         all entries from ZONE\_LIST<sub>s</sub> belonging to a different frequency block (see 2.1.1.1 of  
 35         [2]) than the frequency block associated with SID<sub>s</sub>.

- 1     • Add REG\_ZONE<sub>S</sub>, SID<sub>S</sub>, and NID<sub>S</sub> to ZONE\_LIST<sub>S</sub> if not already in the list. If  
2         required, include the band class identifier and block identifier for the current band  
3         and frequency block as specified in 2.6.5.1.5.
- 4     • Disable the zone list entry timer for the entry of ZONE\_LIST<sub>S</sub> containing  
5         REG\_ZONE<sub>S</sub>, SID<sub>S</sub>, and NID<sub>S</sub>. For any other entry of ZONE\_LIST<sub>S</sub> whose entry timer  
6         is not active, enable the entry timer with the duration specified by ZONE\_TIMER<sub>S</sub>  
7         (see 2.6.5.1.5).
- 8     • If ZONE\_LIST<sub>S</sub> contains more than TOTAL\_ZONES<sub>S</sub> entries, delete the excess entries  
9         according to the rules specified in 2.6.5.1.5.
- 10    • Delete all entries from SID\_NID\_LIST<sub>S</sub> belonging to a different band class (see  
11         2.1.1.1 of [2]) than CDMABAND<sub>S</sub>
- 12    • If CDMABAND<sub>S</sub> = '00000' or CDMABAND<sub>S</sub> = '00011', delete all entries from  
13         SID\_NID\_LIST<sub>S</sub> that have a SID from a different serving system than SERVSYS<sub>S</sub>.
- 14    • If CDMABAND<sub>S</sub> = '00001', CDMABAND<sub>S</sub> = '00010', CDMABAND<sub>S</sub> = '00100',  
15         CDMABAND<sub>S</sub> = '00101', ~~or~~ CDMABAND<sub>S</sub> = '00111', or CDMABAND<sub>S</sub> = '01010', delete  
16         all entries from SID\_NID\_LIST<sub>S</sub> belonging to a different frequency block (see 2.1.1.1  
17         of [2]) than the frequency block associated with SID<sub>S</sub>.
- 18    • Add SID<sub>S</sub> and NID<sub>S</sub> to SID\_NID\_LIST<sub>S</sub> if not already in the list. If required, include  
19         the band class identifier and block identifier for the current band and frequency  
20         block as specified in 2.6.5.1.5.
- 21    • Disable the SID/NID list entry timer for the entry of SID\_NID\_LIST<sub>S</sub> containing SID<sub>S</sub>  
22         and NID<sub>S</sub>. For any other entry of SID\_NID\_LIST<sub>S</sub> whose entry timer is not active,  
23         enable the entry timer with the duration specified in 2.6.5.1.5.
- 24    • If SID\_NID\_LIST<sub>S</sub> contains more than N<sub>10m</sub> entries, delete the excess entries  
25         according to the rules specified in 2.6.5.1.5.
- 26    • If MULT\_SIDS<sub>S</sub> is equal to '0' and SID\_NID\_LIST contains entries with different  
27         IDs, delete the excess entries according to the rules specified in 2.6.5.1.5.
- 28    • If MULT\_NIDS<sub>S</sub> is equal to '0' and SID\_NID\_LIST contains more than one entry for  
29         any SID, delete the excess entries according to the rules specified in 2.6.5.1.5.
- 30    • Set the stored location of last registration (BASE\_LAT\_REG<sub>S-p</sub> and BASE\_LONG-  
31         \_REG<sub>S-p</sub>) to the current base station's location (BASE\_LAT<sub>S</sub> and BASE\_LONG<sub>S</sub>). Set  
32         the stored registration distance (REG\_DIST\_REG<sub>S-p</sub>) to the current base station's  
33         registration distance (REG\_DIST<sub>S</sub>).
- 34    • Set REG\_ENCRYPT RESYNC to NO.

35 These procedures shall be performed after the mobile station receives confirmation of  
36 delivery of any other message:

- 37     • If the mobile station supports the 800 MHz analog mode, set the First-Idle ID status  
38         to enabled (see [2.6.3.11\[6\]](#)).
- 39     • Set DIGITAL\_REG<sub>S-p</sub> to '00000001'.

- Delete all entries from ZONE\_LIST<sub>S</sub> belonging to a different band class (see 2.1.1.1 of [2]) than CDMABAND<sub>S</sub>.
- If CDMABAND<sub>S</sub> = '00000' or CDMABAND<sub>S</sub> = '00011', delete from ZONE\_LIST<sub>S</sub> all entries from ZONE\_LIST<sub>S</sub> that have a SID from a different serving system than SERVSYSS<sub>S</sub>.
- If CDMABAND<sub>S</sub> = '00001', CDMABAND<sub>S</sub> = '00010', CDMABAND<sub>S</sub> = '00100', CDMABAND<sub>S</sub> = '00101', ~~or~~-CDMABAND<sub>S</sub> = '00111', or CDMABAND<sub>S</sub> = '01010', delete all entries from ZONE\_LIST<sub>S</sub> belonging to a different frequency block (see 2.1.1.1 of [2]) than the frequency block associated with SID<sub>S</sub>.
- For any entry of ZONE\_LIST<sub>S</sub> not matching REG\_ZONE<sub>S</sub>, SID<sub>S</sub>, and NID<sub>S</sub> and not having an active entry timer, enable the entry timer with the duration specified by ZONE\_TIMER<sub>S</sub> (see 2.6.5.1.5).
- Delete all entries from SID\_NID\_LIST<sub>S</sub> belonging to a different band class (see 2.1.1.1 of [2]) than CDMABAND<sub>S</sub>.
- If CDMABAND<sub>S</sub> = '00000' or CDMABAND<sub>S</sub> = '00011', delete from SID\_NID\_LIST<sub>S</sub> all entries from SID\_NID\_LIST<sub>S</sub> that have a SID from a different serving system than SERVSYSS<sub>S</sub>.
- If CDMABAND<sub>S</sub> = '00001', CDMABAND<sub>S</sub> = '00010', CDMABAND<sub>S</sub> = '00100', CDMABAND<sub>S</sub> = '00101', ~~or~~-CDMABAND<sub>S</sub> = '00111', or CDMABAND<sub>S</sub> = '01010', delete all entries from SID\_NID\_LIST<sub>S</sub> belonging to a different frequency block (see 2.1.1.1 of [2]) than the frequency block associated with SID<sub>S</sub>.
- For any entry of SID\_NID\_LIST<sub>S</sub> not matching SID<sub>S</sub> and NID<sub>S</sub> and not having an active entry timer, enable the entry timer with the duration specified by ZONE\_TIMER<sub>S</sub> (see 2.6.5.1.5).

#### 2.6.5.3.2 Unsuccessful Access

These procedures are performed when the mobile station declares an access attempt failure when in the *System Access State* (see 2.6.3).

The mobile station shall perform the following actions:

- If the mobile station supports the 800 MHz analog mode, set the First-Idle ID status to enabled (see [2.6.3.11\[6\]](#)).
- Set DIGITAL\_REG<sub>S-p</sub> to '00000001'.
- Delete all entries from ZONE\_LIST<sub>S</sub> belonging to a different band class (see 2.1.1.1 of [2]) than CDMABAND<sub>S</sub>.
- If CDMABAND<sub>S</sub> = '00000' or CDMABAND<sub>S</sub> = '00011', delete from ZONE\_LIST<sub>S</sub> all entries from ZONE\_LIST<sub>S</sub> that have a SID from a different serving system than SERVSYSS<sub>S</sub>.

- If  $\text{CDMABAND}_S = '00001'$ ,  $\text{CDMABAND}_S = '00010'$ ,  $\text{CDMABAND}_S = '00100'$ ,  $\text{CDMABAND}_S = '00101'$ , ~~or~~ $\text{CDMABAND}_S = '00111'$ , or  $\text{CDMABAND}_S = '01010'$ , delete all entries from  $\text{ZONE\_LIST}_S$  belonging to a different frequency block (see 2.1.1.1 of [2]) than the frequency block associated with  $\text{SID}_S$ .
- For any entry of  $\text{ZONE\_LIST}_S$  not matching  $\text{REG\_ZONE}_S$ ,  $\text{SID}_S$ , and  $\text{NID}_S$  and not having an active entry timer, enable the entry timer with the duration specified by  $\text{ZONE\_TIMER}_S$  (see 2.6.5.1.5).
- Delete all entries from  $\text{SID\_NID\_LIST}_S$  belonging to a different band class (see 2.1.1.1 of [2]) than  $\text{CDMABAND}_S$ .
- If  $\text{CDMABAND}_S = '00000'$  or  $\text{CDMABAND}_S = '00011'$ , delete from  $\text{SID\_NID\_LIST}_S$  all entries from  $\text{SID\_NID\_LIST}_S$  that have a SID from a different serving system than  $\text{SERVSYS}_S$ .
- If  $\text{CDMABAND}_S = '00001'$ ,  $\text{CDMABAND}_S = '00010'$ ,  $\text{CDMABAND}_S = '00100'$ ,  $\text{CDMABAND}_S = '00101'$ , ~~or~~ $\text{CDMABAND}_S = '00111'$ , or  $\text{CDMABAND}_S = '01010'$ , delete all entries from  $\text{SID\_NID\_LIST}_S$  belonging to a different frequency block (see 2.1.1.1 of [2]) than the frequency block associated with  $\text{SID}_S$ .
- For any entry of  $\text{SID\_NID\_LIST}_S$  not matching  $\text{SID}_S$  and  $\text{NID}_S$  and not having an active entry timer, enable the entry timer with the duration specified by  $\text{ZONE\_TIMER}_S$  (see 2.6.5.1.5).

#### 2.6.5.3.3 Power Off

These procedures are performed when the mobile station is directed by the user to power off.

The mobile station shall perform the following actions:

- If an entry of  $\text{ZONE\_LIST}_S$  does not have an active timer, copy that entry to  $\text{ZONE\_LIST}_{S-p}$ ; otherwise, delete any entry in  $\text{ZONE\_LIST}_{S-p}$ .
- If an entry of  $\text{SID\_NID\_LIST}_S$  does not have an active timer, copy that entry to  $\text{SID\_NID\_LIST}_{S-p}$ ; otherwise, delete any entry in  $\text{SID\_NID\_LIST}_{S-p}$ .

#### 2.6.5.4 Actions in the Mobile Station Control on the Traffic Channel State

Requirements in this section and its subsections apply only when the mobile station is in the *Mobile Station Control on the Traffic Channel State*.

##### 2.6.5.4.1 Traffic Channel Initialization

Upon entering the *Traffic Channel Initialization Substate* of the *Mobile Station Control on the Traffic Channel State*, the mobile station shall set  $\text{COUNTER\_ENABLED}_S$  to NO.

##### 2.6.5.4.2 Timer Maintenance

While in the *Mobile Station Control on the Traffic Channel State*, the mobile station shall update all active registration timers.

1 If a zone list entry timer expires, the mobile station shall delete the corresponding entry  
 2 from ZONE\_LIST<sub>s</sub>. If a SID/NID list entry timer expires, the mobile station shall delete the  
 3 corresponding entry from SID\_NID\_LIST<sub>s</sub>.

4 2.6.5.5.4.3 Processing the Mobile Station Registered Message

5 The mobile station receives the *Mobile Station Registered Message* on the Forward Traffic  
 6 Channel when the mobile station is considered registered for the base station whose  
 7 location and other parameters are included in the message.

8 The mobile station shall store the following parameters:

- 9 • System identification ( $SID_s = SID_r$ )
- 10 • Network identification ( $NID_s = NID_r$ )
- 11 • Registration zone ( $REG\_ZONE_s = REG\_ZONE_r$ )
- 12 • Number of registration zones to be retained ( $TOTAL\_ZONES_s = TOTAL\_ZONES_r$ )
- 13 • Zone timer length ( $ZONE\_TIMER_s = ZONE\_TIMER_r$ )
- 14 • Multiple SID storage indicator ( $MULT\_SIDS_s = MULT\_SIDS_r$ )
- 15 • Multiple NID storage indicator ( $MULT\_NIDS_s = MULT\_NIDS_r$ )
- 16 • Base station latitude ( $BASE\_LAT_s = BASE\_LAT_r$ )
- 17 • Base station longitude ( $BASE\_LONG_s = BASE\_LONG_r$ )
- 18 • Registration distance ( $REG\_DIST_s = REG\_DIST_r$ )

19 The mobile station shall perform the following actions:

- 20 • If the mobile station supports the 800 MHz analog mode, set the First-Idle ID status  
     to enabled (see [6]).
- 21 • Set DIGITAL\_REG<sub>s-p</sub> to '00000001'.
- 22 • Add REG\_ZONE<sub>s</sub>, SID<sub>s</sub>, and NID<sub>s</sub> to ZONE\_LIST<sub>s</sub> if not already in the list. If  
     required, include the band class identifier and block identifier for the current band  
     and frequency block as specified in 2.6.5.1.5.
- 23 • Delete all entries from ZONE\_LIST<sub>s</sub> belonging to a different band class (see 2.1.1.1 of  
     [2]) than CDMABAND<sub>s</sub>.
- 24 • Disable the zone list entry timer for the entry of ZONE\_LIST<sub>s</sub> containing  
     REG\_ZONE<sub>s</sub>, SID<sub>s</sub>, and NID<sub>s</sub>. For any other entry of ZONE\_LIST<sub>s</sub> whose entry timer  
     is not active, enable the entry timer with the duration specified by ZONE\_TIMER<sub>s</sub>  
     (see 2.6.5.1.5).
- 25 • If ZONE\_LIST<sub>s</sub> contains more than TOTAL\_ZONES<sub>s</sub> entries, delete the excess entries  
     according to the rules specified in 2.6.5.1.5.
- 26 • Delete all entries from SID\_NID\_LIST<sub>s</sub> belonging to a different band class (see [2])  
     than CDMABAND<sub>s</sub>.

- 1     • Add SID<sub>s</sub> and NID<sub>s</sub> to SID\_NID\_LIST<sub>s</sub> if not already in the list. If required, include  
2       the band class identifier and block identifier for the current band and frequency  
3       block as specified in 2.6.5.1.5.
- 4     • Disable the SID/NID list entry timer for the entry of SID\_NID\_LIST<sub>s</sub> containing SID<sub>s</sub>,  
5       and NID<sub>s</sub>. For any other entry of SID\_NID\_LIST<sub>s</sub> whose entry timer is not active,  
6       enable the entry timer with the duration specified in 2.6.5.1.5.
- 7     • If SID\_NID\_LIST<sub>s</sub> contains more than N<sub>10m</sub> entries, delete the excess entries  
8       according to the rules specified in 2.6.5.1.5.
- 9     • If MULT\_SIDS<sub>s</sub> is equal to '0' and SID\_NID\_LIST contains entries with different  
10      IDs, delete the excess entries according to the rules specified in 2.6.5.1.5.
- 11    • If MULT\_NIDS<sub>s</sub> is equal to '0' and SID\_NID\_LIST contains more than one entry for  
12      any SID, delete the excess entries according to the rules specified in 2.6.5.1.5.
- 13    • Set the stored location of last registration (BASE\_LAT\_REG<sub>s-p</sub> and BASE\_LONG-  
14      \_REG<sub>s-p</sub>) to the base station's location (BASE\_LAT<sub>s</sub> and BASE\_LONG<sub>s</sub>). Set the  
15      stored registration distance (REG\_DIST\_REG<sub>s-p</sub>) to the base station's registration  
16      distance (REG\_DIST<sub>s</sub>).
- 17    • Update its roaming status and set MOB\_TERM<sub>s</sub> as specified in 2.6.5.3. The mobile  
18      station should indicate to the user whether the mobile station is roaming.

#### 19    2.6.5.4.4 Power Off

20   These procedures are performed when the mobile station is directed by the user to power  
21   off.

22   The mobile station shall perform the following actions:

- 23    • If an entry of ZONE\_LIST<sub>s</sub> does not have an active timer, copy that entry to  
24      ZONE\_LIST<sub>s-p</sub>; otherwise, delete the entry in ZONE\_LIST<sub>s-p</sub> if ZONE\_LIST<sub>s-p</sub>  
25      contains an entry.
- 26    • If an entry of SID\_NID\_LIST<sub>s</sub> does not have an active timer, copy that entry to  
27      SID\_NID\_LIST<sub>s-p</sub>; otherwise, delete the entry in SID\_NID\_LIST<sub>s-p</sub> if SID\_NID\_LIST<sub>s-p</sub>  
28      contains an entry.

### 29   2.6.6 Handoff Procedures

30   This section presents an overview and mobile station requirements for handoffs occurring  
31   while the mobile station is in the *Mobile Station Control on the Traffic Channel State* (see  
32   2.6.4). Mobile station requirements for handoffs occurring while the mobile station is in the  
33   *Mobile Station Idle State* are specified in 2.6.2.1.4.

#### 34   2.6.6.1 Overview

##### 35   2.6.6.1.1 Types of Handoff

36   The mobile station supports the following three handoff procedures while in the *Mobile*  
37   *Station Control on the Traffic Channel State*:

- *Soft Handoff:* A handoff in which the mobile station commences communications with a new base station without interrupting communications with the old base station. Soft handoff can only be used between CDMA Channels having identical Frequency Assignments. Soft handoff provides diversity of Forward Traffic Channels and Reverse Traffic Channel paths on the boundaries between base stations.
- *CDMA-to-CDMA Hard Handoff:* A handoff in which the mobile station is transitioned between disjoint sets of base stations, different band classes, different Frequency Assignments, or different frame offsets.
- *CDMA-to-Analog Handoff:* A handoff in which the mobile station is directed from a CDMA traffic channel to an analog voice channel.

The mobile station shall support soft handoffs on the same Frequency Assignment (see 2.6.6.2.7). The mobile station shall support CDMA-to-CDMA hard handoffs between band classes on which it supports CDMA operation (see 2.6.6.2.8). The mobile station shall support CDMA-to-Analog handoffs from band classes on which it supports CDMA operation to band classes on which it supports analog operation (see 2.6.6.2.9).

#### 2.6.6.1.2 Pilot Sets

Within section 2.6.6 the term pilot refers to a Pilot Channel identified by a pilot sequence offset (see 3.1.3.2.1 of [2]), a Walsh function or a quasi-orthogonal function (see 3.1.3.2.2 of [2]), and a Frequency Assignment (see 2.1.1.1 of [2]). A pilot is associated with the Forward Traffic Channels in the same Forward CDMA Channel. All pilots in a pilot set have the same CDMA Frequency Assignment.

The mobile station searches for pilots on the current CDMA Frequency Assignment to detect the presence of CDMA Channels and to measure their strengths. When the mobile station detects a pilot of sufficient strength that is not associated with any of the Forward Traffic Channels assigned to it, it sends a *Pilot Strength Measurement Message* or an *Extended Pilot Strength Measurement Message* to the base station. The base station can then assign a Forward Traffic Channel associated with that pilot to the mobile station and direct the mobile station to perform a handoff.

The pilot search parameters and the rules for *Pilot Strength Measurement Message* or *Extended Pilot Strength Measurement Message* transmission are expressed in terms of the following sets of pilots:

- *Active Set:* The pilots associated with the Forward Traffic Channels assigned to the mobile station.
- *Candidate Set:* The pilots that are not currently in the Active Set but have been received by the mobile station with sufficient strength to indicate that the associated Forward Traffic Channels could be successfully demodulated.
- *Neighbor Set:* The pilots that are not currently in the Active Set or the Candidate Set and are likely candidates for handoff.

- *Remaining Set:* The set of all possible pilots in the current system on the current CDMA Frequency Assignment, excluding the pilots in the Neighbor Set, the Candidate Set, and the Active Set. This set of possible pilots consists of pilots whose pilot PN sequence offset indices are integer multiples of PILOT\_INC<sub>S</sub>.

The base station may direct the mobile station to search for pilots on a different CDMA frequency to detect the presence of CDMA Channels and to measure their strengths. The mobile station reports the results of the search to the base station using the *Candidate Frequency Search Report Message*. Depending upon the pilot strength measurements reported in the *Candidate Frequency Search Report Message*, the base station can direct the mobile station to perform an inter-frequency hard handoff.

The pilot search parameters are expressed in terms of the following sets of pilots on the CDMA Candidate Frequency:

- *Candidate Frequency Neighbor Set:* A list of pilots on the CDMA Candidate Frequency.
- *Candidate Frequency Search Set:* A subset of the Candidate Frequency Neighbor Set that the base station may direct the mobile station to search.

#### 2.6.6.2 Requirements

##### 2.6.6.2.1 Pilot Search

For the pilot sets defined in 2.6.6.1.2, the base station sets the search window (range of PN offsets) in which the mobile station is to search for usable multipath components (i.e., multipath components that the mobile station can use for demodulation of the associated Forward Traffic Channel) of the pilots in the set.

Search performance criteria are defined in [11].

This search shall be governed by the following:

- *Active Set and Candidate Set:* The search procedures for pilots in the Active Set and Candidate Set shall be identical. The search window size<sup>16</sup> for each pilot in the Active Set and Candidate Set shall be the number of PN chips specified in Table 2.6.6.2.1-1 corresponding to SRCH\_WIN\_A<sub>S</sub>. The mobile station should center the search window for each pilot of the Active Set and Candidate Set around the earliest arriving usable multipath component of the pilot. If the mobile station receives a value greater than or equal to 13 for SRCH\_WIN\_A<sub>R</sub>, it may store and use the value 13 in SRCH\_WIN\_A<sub>S</sub>.

---

<sup>16</sup> The table defines the entire search range. For example, SRCH\_WIN\_A<sub>S</sub> = 6 corresponds to a 28 PN chip search window or  $\pm 14$  PN chips around the search window center.

1

**Table 2.6.6.2.1-1. Searcher Window Sizes**

| <b>SRCH_WIN_A</b><br><b>SRCH_WIN_N</b><br><b>SRCH_WIN_NGHBR</b><br><b>SRCH_WIN_R</b><br><b>CF_SRCH_WIN_N</b> | <b>window_size</b><br>(PN chips) | <b>SRCH_WIN_A</b><br><b>SRCH_WIN_N</b><br><b>SRCH_WIN_NGHBR</b><br><b>SRCH_WIN_R</b><br><b>CF_SRCH_WIN_N</b> | <b>window_size</b><br>(PN chips) |
|--------------------------------------------------------------------------------------------------------------|----------------------------------|--------------------------------------------------------------------------------------------------------------|----------------------------------|
| 0                                                                                                            | 4                                | 8                                                                                                            | 60                               |
| 1                                                                                                            | 6                                | 9                                                                                                            | 80                               |
| 2                                                                                                            | 8                                | 10                                                                                                           | 100                              |
| 3                                                                                                            | 10                               | 11                                                                                                           | 130                              |
| 4                                                                                                            | 14                               | 12                                                                                                           | 160                              |
| 5                                                                                                            | 20                               | 13                                                                                                           | 226                              |
| 6                                                                                                            | 28                               | 14                                                                                                           | 320                              |
| 7                                                                                                            | 40                               | 15                                                                                                           | 452                              |

2

3

**Table 2.6.6.2.1-2. Search Window Offset**

| <b>SRCH_OFFSET_NGHBR</b><br><b>CF_SRCH_OFFSET_NGHBR</b> | <b>Offset ( PN chips)</b>           |
|---------------------------------------------------------|-------------------------------------|
| 0                                                       | 0                                   |
| 1                                                       | window_size/2                       |
| 2                                                       | window_size                         |
| 3                                                       | $3 \times \text{window\_size} / 2$  |
| 4                                                       | $-\text{window\_size} / 2$          |
| 5                                                       | $-\text{window\_size}$              |
| 6                                                       | $-3 \times \text{window\_size} / 2$ |
| 7                                                       | Reserved                            |

4

- *Neighbor Set:* If SRCH\_WIN\_NGHBR\_INCL<sub>S</sub> is equal to ‘1’, the search window size for each pilot in the Neighbor Set shall be the number of PN chips specified in Table 2.6.6.2.1-1, corresponding to SRCH\_WIN\_NGHBR<sub>S</sub> associated with the pilot being searched. If SRCH\_WIN\_NGHBR\_INCL<sub>S</sub> is equal to ‘0’, the search window size for each pilot in the Neighbor Set shall be the number of PN chips specified in Table 2.6.6.2.1-1 corresponding to SRCH\_WIN\_N<sub>S</sub>. If SRCH\_OFFSET\_INCL<sub>S</sub> is equal to ‘1’, the search window offset for each pilot in the Neighbor Set shall be the number of PN chips specified in Table 2.6.6.2.1-2, corresponding to SRCH\_OFFSET\_NGHBR<sub>S</sub> associated with the pilot being searched. If SRCH\_OFFSET\_INCL<sub>S</sub> is equal to ‘0’, the search window offset for each pilot in the Neighbor Set shall be zero PN chip. The mobile station should center the search window for each pilot in the Neighbor Set around the pilot’s PN sequence offset plus the corresponding search window offset, using timing defined by the mobile station’s time reference (see [2]). If SEARCH\_PRIORITY\_INCL<sub>S</sub> is equal to ‘1’, the mobile station should use SEARCH\_PRIORITY<sub>S</sub> for the corresponding pilot to schedule its neighbor search. If the mobile station supports hopping pilot beacons and the TIMING\_INCL field of the NGHBR\_REC for the corresponding pilot is equal to ‘1’, then the mobile station shall use the information included in the NGHBR\_TX\_OFFSET, NGHBR\_TX\_DURATION, and NGHBR\_TX\_PERIOD fields of the NGHBR\_REC for the corresponding pilot to schedule the time for searching the neighbor. If ADD\_PILOT\_REC\_INCL field of the NGHBR\_REC for the corresponding pilot is equal to ‘1’, the mobile station shall use the information included in the NGHBR\_PILOT\_REC field for searching the neighbor.
- *Remaining Set:* The search window size for each pilot in the Remaining Set shall be the number of PN chips specified in Table 2.6.6.2.1-1 corresponding to SRCH\_WIN\_R<sub>S</sub>. The mobile station should center the search window for each pilot in the Remaining Set around the pilot’s PN sequence offset, using timing defined by the mobile station’s time reference (see [2]). The mobile station should only search for Remaining Set pilots whose pilot PN sequence offset indices are equal to integer multiples of PILOT\_INC<sub>S</sub>.

- *Candidate Frequency Search Set:* If CF\_SRCH\_WIN\_NGHBR<sub>N</sub>\_INCL<sub>S</sub> is equal to ‘1’, the search window size for each pilot in the Candidate Frequency Search Set shall be the number of PN chips specified in Table 2.6.6.2.1-1, corresponding to SRCH\_WIN\_NGHBR<sub>S</sub> associated with the pilot being searched. If CF\_SRCH\_WIN\_NGHBR\_INCL<sub>S</sub> is equal to ‘0’, the search window size for each pilot in the Candidate Frequency Search Set shall be the number of PN chips specified in Table 2.6.6.2.1-1 corresponding to CF\_SRCH\_WIN\_N<sub>S</sub>. If CF\_SRCH\_OFFSET\_INCL<sub>S</sub> is equal to ‘1’, the search window offset for each pilot in the Candidate Frequency Search Set shall be the number of PN chips specified in Table 2.6.6.2.1-2, corresponding to SRCH\_OFFSET\_NGHBR<sub>S</sub> associated with the pilot being searched. If CF\_SRCH\_OFFSET\_INCL<sub>S</sub> is equal to ‘0’, the search window offset for each pilot in the Candidate Frequency Search Set shall be zero PN chips. The mobile station should center the search window for each pilot in the Candidate Frequency Search Set around the pilot’s PN sequence offset plus the corresponding search window offset using timing defined by the mobile station’s time reference (see [2]). If CF\_SEARCH\_PRIORITY\_INCL<sub>S</sub> is equal to ‘1’, the mobile station should use SEARCH\_PRIORITY<sub>S</sub> associated with each pilot to schedule a search of its Candidate Frequency Search Set.

## 2.6.6.2.2 Pilot Strength Measurements

The mobile station assists the base station in the handoff process and in the Reverse Supplemental Code Channel operation and in the Reverse Supplemental Channel operation by measuring and reporting the strengths of received pilots.

For an SR1 pilot, the mobile station should use the searcher element (see [2]) to compute the strength of a pilot (PS) by adding the ratios of received pilot energy per chip, E<sub>c</sub>, to total received spectral density (noise and signals), I<sub>o</sub>, of at most k usable multipath components, where k is the number of demodulating elements (see [2]) supported by the mobile station.

For an SR3 pilot, the pilot strength is given by

$$\frac{1}{3} \times \left( \left( \frac{E_c}{I_o} \right)_{\text{Primary}} + \frac{\left( \frac{E_c}{I_o} \right)_1}{\Delta_1} + \frac{\left( \frac{E_c}{I_o} \right)_2}{\Delta_2} \right)$$

where:

-  $\left( \frac{E_c}{I_o} \right)_{\text{Primary}}$  is the pilot Ec/Io measured on the Primary carrier (computed as specified above for SR1 pilots),

-  $\left( \frac{E_c}{I_o} \right)_1$  is the pilot Ec/Io measured on the pilot on the lower frequency of the two remaining SR3 frequencies (computed as specified above for SR1 pilots), and  $\Delta_1$  is

1 the pilot power level on the lower frequency of the two remaining SR3 frequencies  
 2 relative to that of the primary SR3 pilot, i.e.  $\Delta_1 = \frac{E_c}{I_o}^{(-SR3\_PILOT\_POWER1/10)}$ .

- 3 -  $\left( \frac{E_c}{I_o} \right)_2$  is the pilot Ec/Io measured on the pilot on the higher frequency of the two  
 4 remaining SR3 frequencies (computed as specified above for SR1 pilots), and  $\Delta_2$  is  
 5 the pilot power level on the higher frequency of the two remaining SR3 frequencies  
 6 relative to that of the primary SR3 pilot, i.e.  $\Delta_2 = \frac{E_c}{I_o}^{(-SR3\_PILOT\_POWER2/10)}$ .

7 2.6.6.2.3 Handoff Drop Timer

8 The mobile station shall maintain a handoff drop timer for each pilot in the Active Set and  
 9 Candidate Set.

10 If P\_REV\_IN\_USE<sub>s</sub> is less than or equal to three or SOFT\_SLOPE<sub>s</sub> is equal to '000000', the  
 11 mobile station shall perform the following:

- 12 • For the Candidate Set, the mobile station shall start the timer whenever the  
 13 strength of the corresponding pilot becomes less than T\_DROP<sub>s</sub>. The mobile station  
 14 shall reset and disable the timer if the strength of the corresponding pilot exceeds  
 15 T\_DROP<sub>s</sub>.
- 16 • For the Active Set, the mobile station shall start the timer whenever the strength of  
 17 the corresponding pilot becomes less than T\_DROP<sub>s</sub>. The mobile station shall start  
 18 the timer even if the timer has previously expired. The mobile station shall reset  
 19 and disable the timer if the strength of the corresponding pilot exceeds T\_DROP<sub>s</sub>.

20 If P\_REV\_IN\_USE<sub>s</sub> is greater than three and SOFT\_SLOPE<sub>s</sub> is not equal to '000000', the  
 21 mobile station shall perform the following:

- 22 • For the Candidate Set, the mobile station shall start the timer whenever the  
 23 strength of the corresponding pilot becomes less than T\_DROP<sub>s</sub>. The mobile station  
 24 shall reset and disable the timer if the strength of the corresponding pilot exceeds  
 25 T\_DROP<sub>s</sub>.
- 26 • For the Active Set, the mobile station shall sort the N<sub>A</sub> pilots in the Active Set in  
 27 order of increasing strengths, i.e., PS<sub>1</sub> < PS<sub>2</sub> < PS<sub>3</sub> < ... < PS<sub>N<sub>A</sub></sub> where the strength  
 28 PS is as defined in 2.6.6.2.2. The mobile station shall start the timer whenever the  
 29 strength PS<sub>i</sub> satisfies the following inequality:

$$30 \quad 10 \times \log_{10} PS_i < \max\left(\frac{SOFT\_SLOPE_s}{8} \times 10 \times \log_{10} \sum_{j>i} PS_j + \frac{DROP\_INTERCEPT_s}{2}, -\frac{T\_DROP_s}{2}\right)$$

$i = 1, 2, \dots, PS_{N_A-1}$

31  
 32 For the Active Set, the mobile station shall start the timer even if the timer has previously  
 33 expired. The mobile station shall reset and disable the timer whenever the above inequality  
 34 is not satisfied for the corresponding pilot.

If  $T_{TDROP_S}$  equals zero, the mobile station shall consider the timer expired within 100 ms of enabling it. Otherwise, the mobile station shall consider the timer expired within 10% of the timer expiration value shown in Table 2.6.6.2.3-1 corresponding to  $T_{TDROP_S}$ . If  $T_{TDROP_S}$  changes, the mobile station shall begin using the new value for all handoff drop timers within 100 ms.

**Table 2.6.6.2.3-1. Handoff Drop Timer Expiration Values**

| <b><math>T_{TDROP}</math></b> | <b>Timer<br/>Expiration<br/>(seconds)</b> | <b><math>T_{TDROP}</math></b> | <b>Timer<br/>Expiration<br/>(seconds)</b> |
|-------------------------------|-------------------------------------------|-------------------------------|-------------------------------------------|
| 0                             | 0.1                                       | 8                             | 27                                        |
| 1                             | 1                                         | 9                             | 39                                        |
| 2                             | 2                                         | 10                            | 55                                        |
| 3                             | 4                                         | 11                            | 79                                        |
| 4                             | 6                                         | 12                            | 112                                       |
| 5                             | 9                                         | 13                            | 159                                       |
| 6                             | 13                                        | 14                            | 225                                       |
| 7                             | 19                                        | 15                            | 319                                       |

The mobile station shall indicate the status of the handoff drop timer for all pilots in the Active Set and Candidate Set when transmitting a *Pilot Strength Measurement Message* or an *Extended Pilot Strength Measurement Message*.

#### 2.6.6.2.4 Pilot PN Phase

The mobile station shall measure the arrival time, PILOT\_ARRIVAL, for each pilot reported to the base station. The pilot arrival time shall be the time of occurrence, as measured at the mobile station antenna connector, of the earliest arriving usable multipath component of the pilot (for SR3 pilots, it is based on the earliest arriving usable multipath component from all three carriers). The arrival time shall be measured relative to the mobile station's time reference (see [2]) in units of PN chips. The mobile station shall compute the reported pilot PN phase, PILOT\_PN\_PHASE, as

$$\text{PILOT\_PN\_PHASE} = (\text{PILOT\_ARRIVAL} + (64 \times \text{PILOT\_PN})) \bmod 2^{15},$$

where PILOT\_PN is the PN sequence offset index of the pilot (see [2]).

#### 2.6.6.2.5 Handoff Messages

##### 2.6.6.2.5.1 Processing of Forward Traffic Channel Handoff Messages

If the mobile station receives any of the following messages, then the mobile station shall process the message as described.

- 1    1. *Pilot Measurement Request Order*: The mobile station shall send, within T<sub>56m</sub>  
 2    seconds, a *Pilot Strength Measurement Message* if P\_REV\_IN\_USE is less than seven  
 3    or a *Extended Pilot Strength Measurement Message* if P\_REV\_IN\_USE is equal to or  
 4    greater than seven.
- 5    2. *Analog Handoff Direction Message*: The mobile station shall process the message as  
 6    specified in 2.6.6.2.9.
- 7    3. *Neighbor List Update Message*: The mobile station shall process the message as  
 8    specified in 2.6.6.2.6.3 and set SEARCH\_PRIORITY\_INCL<sub>S</sub>,  
 9    SRCH\_WIN\_NGHBR\_INCL<sub>S</sub>, and SRCH\_OFFSET\_INCL<sub>S</sub> to '0', and set TIMING\_INCL  
 10   for each of the neighboring base stations in the *Neighbor List Update Message* to '0'.
- 11   4. *Extended Handoff Direction Message*: The mobile station shall process the message as  
 12   follows:

13     The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set  
 14   to '00000110' (capability not supported), if the mobile station does not support the  
 15   band class specified in the *Extended Handoff Direction Message*.

16     If the mobile station does not send a *Mobile Station Reject Order* in response to the  
 17   *Extended Handoff Direction Message*, the mobile station shall perform the following at  
 18   the action time of the message:

- 19     • The mobile station shall send a *Handoff Completion Message* or an *Extended  
 20   Handoff Completion Message* as specified in 2.6.6.2.5.2.
- 21     • Update the Active Set, Candidate Set, and Neighbor Set in accordance with the  
 22   *Extended Handoff Direction Message* processing (see 2.6.6.2.6.1, 2.6.6.2.6.2, and  
 23   2.6.6.2.6.3).
- 24     • The mobile station shall delete all pilots that are not listed in the Active Set of the  
 25   Fundamental Channel from the Active Set of the Supplemental Channel for the  
 26   Forward Supplemental Channel Assignment (if any). If these deleted pilots include  
 27   all pilots in the Active Set of the Supplemental Channel, the mobile station shall  
 28   cancel the Forward Supplemental Channel Assignment.
- 29     • Discontinue use of all Forward Traffic Channels associated with pilots not listed in  
 30   the *Extended Handoff Direction Message*.
- 31     • The mobile station shall update the Code Channel List, CODE\_CHAN\_LIST<sub>S</sub>, as  
 32   specified in 2.6.8.
- 33     • If the mobile station is currently processing Forward Supplemental Code Channels,  
 34   then it shall continue processing the Forward Supplemental Code Channels using  
 35   the updated Code Channel List, CODE\_CHAN\_LIST<sub>S</sub>.
- 36     • The mobile station shall set IGNORE\_SCAM<sub>S</sub> and IGNORE\_ESCAM<sub>S</sub> to '0'.
- 37     • If HARD\_INCLUDED is equal to '1', perform the following actions:
  - 38       – If FRAME\_OFFSET<sub>r</sub> is not equal to FRAME\_OFFSET<sub>S</sub>, change the frame  
 39   offset on all of the code channels of the Forward Traffic Channel and of the  
 40   Reverse Traffic Channel.

- If RESET\_L2<sub>r</sub> is equal to ‘1’, Layer 3 shall send a L2-Supervision.Request primitive to Layer 2 to reset the acknowledgment procedures as specified in 2.2.1.1 and 2.2.2.1 of [4]. The acknowledgment procedures shall be reset immediately after the action time of the *Extended Handoff Direction Message*.
- If RESET\_FPC<sub>r</sub> is equal to ‘1’, initialize the Forward Traffic Channel power control counters as specified in 2.6.4.1.1.1.
- If SERV\_NEG\_TYPE<sub>r</sub> is equal to ‘1’, set SERV\_NEG<sub>s</sub> to enabled; otherwise set SERV\_NEG<sub>s</sub> to disabled.
- Use the long code mask specified by the PRIVATE\_LCM<sub>r</sub> (see 2.3.12.3) and indicate to the user the voice privacy mode status.
- Process the ENCRYPT\_MODE field as specified in 2.3.12.2.
- Store the following parameters from the current configuration:
  - Serving Frequency Assignment ( $SF_{CDMACH_s} = CDMACH_s$ )
  - Serving Frequency band class ( $SF_{BAND\_CLASS_s} = BAND\_CLASS_s$ )
  - Serving Frequency frame offset ( $SF_{FRAME\_OFFSET_s} = FRAME\_OFFSET_s$ )
- If HARD\_INCLUDED is not equal to ‘1’, set NUM\_PREAMBLE<sub>s</sub> = ‘000’.
- Store the following parameters from the *Extended Handoff Direction Message*:
  - *Extended Handoff Direction Message* sequence number ( $HDM_{SEQ_s} = HDM_{SEQ_r}$ )
  - If SEARCH\_INCLUDED is equal to ‘1’, then store the following:
    - + Search window size for the Active Set and Candidate Set ( $SRCH_{WIN\_A_s} = SRCH_{WIN\_A_r}$ )
    - + Pilot detection threshold ( $T_{ADD_s} = T_{ADD_r}$ )
    - + Pilot drop threshold ( $T_{DROP_s} = T_{DROP_r}$ )
    - + Active Set versus Candidate Set comparison threshold ( $T_{COMP_s} = T_{COMP_r}$ )
    - + Drop timer value ( $T_{TDROP_s} = T_{TDROP_r}$ )
  - If HARD\_INCLUDED is equal to ‘1’, then store the following:
    - + Frame offset ( $FRAME_{OFFSET_s} = FRAME_{OFFSET_r}$ )
    - + Nominal power setting of the target cell ( $NOM_{PWR_s} = NOM_{PWR_r}$ )
    - + Hard handoff traffic channel preamble count required before transmitting *Handoff Completion Message* or *Extended Handoff Completion Message* ( $NUM_{PREAMBLE_s} = NUM_{PREAMBLE_r}$ )
    - + CDMA band class ( $CDMABAND_s = BAND\_CLASS_r$ )
    - + Frequency assignment ( $CDMACH_s = CDMA\_FREQ_r$ )

- + Nominal power setting of the target cell (If  $CDMABAND_S = '00000'$  or  $CDMABAND_S = '00011'$ , then  $NOM\_PWR\_EXT_S = '0'$ ; otherwise,  $NOM\_PWR\_EXT_S = NOM\_PWR\_EXT_r$ )
- One occurrence of PILOT\_PN and PWR\_COMB\_IND for each included member of the Active Set.
- If ADD\_LENGTH is not equal to '000', then store the following:
  - + Protocol revision level ( $P\_REV_S = P\_REV_r$ )
  - + Protocol revision level currently in use ( $P\_REV\_IN\_USE_S =$  the minimum value of  $P\_REV_S$  and  $MOB\_P\_REV_p$  of the current band class)
- Disable return on failure ( $RETURN\_IF\_HANDOFF\_FAIL_S = '0'$ )
- Perform a soft or hard handoff depending on the following conditions:
  - If any of the following conditions is true, the mobile station shall perform a hard handoff:
    - + HARD\_INCLUDED is set to '1' and either  $BAND\_CLASS_r$  is not equal to  $SF\_CDMABAND_S$ ,  $CDMA\_FREQ_r$  is not equal to  $SF\_CDMACH_S$ , or  $FRAME\_OFFSET_r$  is not equal to  $SF\_FRAME\_OFFSET_S$ , or
    - + The set of pilots specified by the message is disjoint from the Active Set prior to the action time of the message.
  - If the mobile station performs a hard handoff, it shall do the following:
    - + If a Periodic Serving Frequency Pilot Report Procedure is in progress, abort the procedure (see 2.6.6.2.12).
    - + If a Candidate Frequency periodic search is in progress, abort the periodic search (see 2.6.6.2.8.3.4 and 2.6.6.2.10.4) and set  $PERIODIC\_SEARCH_S$  to '0'.
    - + The mobile station shall cancel the Forward Supplemental Channel assignment or the Reverse Supplemental Channel assignment (if any).
  - Perform the actions specified in 2.6.6.2.8.1. If the message specifies more than one pilot, the mobile station shall also perform the actions specified in 2.6.6.2.7.1 and 2.6.6.2.7.2.
  - Otherwise, the mobile station shall perform a soft handoff as specified in 2.6.6.2.7.

5. *Candidate Frequency Search Request Message:* The mobile station shall process the message as follows:

The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to '00000110' (capability not supported), if the following condition is true:

- $SEARCH\_MODE_r$  is not equal to '0000', and the mobile station does not support the capability specified by  $SEARCH\_MODE_r$ .

If none of the above conditions is true, the mobile station shall perform the actions described in the remainder of this section to process the *Candidate Frequency Search Request Message*.

If SEARCH\_MODE<sub>r</sub> is equal to '0000', the mobile station shall process the *Candidate Frequency Search Request Message* as follows:

- The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to '00001100' (invalid Frequency Assignment), if the Frequency Assignment specified in the message is the same as the Serving Frequency (BAND\_CLASS<sub>r</sub> is equal to CDMABAND<sub>s</sub> and CDMA\_FREQ<sub>r</sub> is equal to CDMACH<sub>s</sub>).
- The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to '00001010' (search set not specified), if SEARCH\_TYPE<sub>r</sub> is equal to '01' or '11', and one of the following conditions is true:
  - PILOT\_UPDATE<sub>r</sub> is equal to '0' and the Candidate Frequency Search Set before the action time of the *Candidate Frequency Search Request Message* is empty, or
  - PILOT\_UPDATE<sub>r</sub> is equal to '1' and the message specifies an empty search set.
- The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to '00001101' (search period too short), if SEARCH\_TYPE<sub>r</sub> is equal to '11' and search\_period is less than (max (fwd\_time, rev\_time) + T71m) seconds, where search\_period, fwd\_time and rev\_time are defined below.

(In the following, if PILOT\_UPDATE<sub>r</sub> is equal to '1', rec\_search\_set is the set of pilots specified in the *Candidate Frequency Search Request Message* with the corresponding SEARCH\_SET field set to '1'; otherwise, rec\_search\_set is the Candidate Frequency Search Set before the action time of the *Candidate Frequency Search Request Message*.)

search\_period = time period corresponding to SEARCH\_PERIOD<sub>r</sub> shown in Table 2.6.6.2.8.3.2-1

fwd\_time = the mobile station's estimate of the total length of time, in seconds, for which the mobile station will need to suspend its current Forward Traffic Channel processing in order to tune to the Candidate Frequency, to search rec\_search\_set, and to re-tune to the Serving Frequency; if the mobile station searches rec\_search\_set in multiple visits, fwd\_time is the total time for all visits to the Candidate Frequency in a search period (see 2.6.6.2.8.3.2)

1           `rev_time` = the mobile station's estimate of the total length of time, in  
 2           seconds, for which the mobile station will need to suspend its  
 3           current Reverse Traffic Channel processing in order to tune to the Candidate Frequency, to search `rec_search_set`, and to re-  
 4           tune to the Serving Frequency; if the mobile station searches  
 5           `rec_search_set` in multiple visits, `rev_time` is the total time for  
 6           all visits to the Candidate Frequency in a search period  
 7

- 8           • If the mobile station does not send a *Mobile Station Reject Order* in response to  
 9           the *Candidate Frequency Search Request Message*, it shall perform the following:
- 10           – The mobile station shall send a *Candidate Frequency Search Response*  
 11           *Message* in assured mode, within T56m seconds of receiving the *Candidate*  
 12           *Frequency Search Request Message*. The mobile station shall set the fields of  
 13           the *Candidate Frequency Search Response Message* as follows:
  - 14           + The mobile station shall set `TOTAL_OFF_TIME_FWD` and  
 15           `TOTAL_OFF_TIME_REV` to its estimate of the total number of frames or  
 16           power control groups for which it will need to suspend its current  
 17           Forward Traffic Channel processing and Reverse Traffic Channel  
 18           processing, respectively, in order to tune to the Candidate Frequency, to  
 19           search `rec_search_set`, and to re-tune to the Serving Frequency (see  
 20           2.6.6.2.8.3.2). If the mobile station searches `rec_search_set` in multiple  
 21           visits to the Candidate Frequency, the mobile station shall report the  
 22           total number of frames or power control groups in all visits in a search  
 23           period for which it will need to suspend its current Forward Traffic  
 24           Channel and the Reverse Traffic Channel processing.
  - 25           + The mobile station shall set `MAX_OFF_TIME_FWD` and  
 26           `MAX_OFF_TIME_REV` to its estimate of the maximum number of frames  
 27           or power control groups for which it will need to suspend its current  
 28           Forward Traffic Channel processing and Reverse Traffic Channel  
 29           processing, respectively, during any single visit to tune to the Candidate  
 30           Frequency, to search a subset of `rec_search_set`, and to re-tune to the  
 31           Serving Frequency.<sup>17</sup>

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<sup>17</sup> If the mobile station searches the entire Candidate Frequency Search Set in a single visit to the Candidate Frequency, `TOTAL_OFF_TIME_FWD` will be equal to `MAX_OFF_TIME_FWD`, and `TOTAL_OFF_TIME_REV` will be equal to `MAX_OFF_TIME_REV`.

- + The mobile station shall set PCG\_OFF\_TIMES to '1' if TOTAL\_OFF\_TIME\_FWD, MAX\_OFF\_TIME\_FWD, TOTAL\_OFF\_TIME\_**REVFWD** and MAX\_OFF\_TIME\_**REVFWD** are expressed in units of power control groups. If these time estimates are expressed in units of frames, the mobile station shall set PCG\_OFF\_TIMES to '0'. The mobile station shall not use power control groups as the unit of delay-duration, if P\_REV\_IN\_USE<sub>s</sub> is less than six.
- + If ALIGN\_TIMING<sub>r</sub> is equal to '1', the mobile station shall set ALIGN\_TIMING\_USED to '1' to indicate if it will align its search as requested by the base station; otherwise, the mobile station shall set ALIGN\_TIMING\_USED to '0'. If ALIGN\_TIMING\_USED is set to '1', the mobile station shall set MAX\_NUM\_VISITS to the maximum number of visits per search period minus one.\_and,\_if MAX\_NUM\_VISITS is not equal to 0, the mobile station shall set INTER\_VISIT\_TIME, in units of frames or power control groups, to its estimate of the time between subsequent the beginning of consecutive visits to the Candidate Frequency within the same search period.
- When the message takes effect, the mobile station shall perform the following actions:
  - + If any periodic search is in progress, the mobile station shall abort it (see 2.6.6.2.8.3.4 and 2.6.6.2.10.4).
  - + Store the following parameters from the *Candidate Frequency Search Request Message*:
    - o *Candidate Frequency Search Request Message* sequence number (CFSRM\_SEQ<sub>s</sub> = CFSRM\_SEQ<sub>r</sub>)
    - o Periodic search flag: If SEARCH\_TYPE<sub>r</sub> is equal to '11', the mobile station shall set PERIODIC\_SEARCH<sub>s</sub> to '1'; otherwise, the mobile station shall set PERIODIC\_SEARCH<sub>s</sub> to '0'.
    - o Search period on the Candidate Frequency (SEARCH\_PERIOD<sub>s</sub> = SEARCH\_PERIOD<sub>r</sub>)
    - o Candidate Frequency search mode (SEARCH\_MODE<sub>s</sub> = SEARCH\_MODE<sub>r</sub>)
    - o Band class for the Candidate Frequency (CF\_CDMABAND<sub>s</sub> = BAND\_CLASS<sub>r</sub>)
    - o CDMA Channel number for the CDMA Candidate Frequency (CF\_CDMACH<sub>s</sub> = CDMA\_FREQ<sub>r</sub>)
    - o Serving Frequency total pilot E<sub>c</sub> threshold (SF\_TOTAL\_EC\_THRESH<sub>s</sub> = SF\_TOTAL\_EC\_THRESH<sub>r</sub>)
    - o Serving Frequency total pilot E<sub>c</sub>/I<sub>o</sub> threshold (SF\_TOTAL\_EC\_IO\_THRESH<sub>s</sub> = SF\_TOTAL\_EC\_IO\_THRESH<sub>r</sub>)

- 1        o Received power difference threshold  
( $\text{DIFF\_RX\_PWR\_THRESH}_S = \text{DIFF\_RX\_PWR\_THRESH}_R$ )
- 2
- 3        o Candidate Frequency Total pilot  $E_C/I_0$  threshold  
( $\text{MIN\_TOTAL\_PILOT\_EC\_IO}_S = \text{MIN\_TOTAL\_PILOT\_EC\_IO}_R$ )
- 4
- 5        o Pilot detection threshold on the CDMA Candidate Frequency  
( $\text{CF\_T\_ADD}_S = \text{CF\_T\_ADD}_R$ )
- 6
- 7        o Maximum time on the CDMA Target Frequency that the mobile  
station may wait to receive a period of ( $N_{11m} \times 20$ ) ms with sufficient  
signal quality (e.g. good frames) on the physical channel  
corresponding to  $\text{FPC\_PRI\_CHAN}_S$   
( $\text{TF\_WAIT\_TIME}_S = \text{TF\_WAIT\_TIME}_R$ )
- 8
- 9
- 10
- 11
- 12        o Pilot PN sequence offset increment on the CDMA Candidate  
Frequency ( $\text{CF\_PILOT\_INC}_S = \text{CF\_PILOT\_INC}_R$ )
- 13
- 14        o Search window for pilots in the Neighbor Set on the CDMA Candidate  
Frequency ( $\text{CF\_SRCH\_WIN\_N}_S = \text{CF\_SRCH\_WIN\_N}_R$ )
- 15
- 16        o Search window for pilots in the Remaining Set on the CDMA Candidate  
Frequency ( $\text{CF\_SRCH\_WIN\_R}_S = \text{CF\_SRCH\_WIN\_R}_R$ )
- 17
- 18        o If PILOT\_UPDATE is equal to '1', the mobile station shall perform the  
following:
  - 20            ◊ Set  $\text{CF\_SEARCH\_PRIORITY\_INCL}_S$  and  
 $\text{CF\_SRCH\_WIN\_NGHBR\_INCL}_S$  to the values corresponding to  
 $\text{CF\_NGHBR\_SRCH\_MODE}$  shown in Table 2.6.6.2.5.1-1,
  - 21            ◊ Set  $\text{CF\_SRCH\_OFFSET\_INCL}_S$  to  $\text{CF\_SRCH\_OFFSET\_INCL}_R$ .
- 22
- 23
- 24        o If PILOT\_UPDATE is equal to '1', the mobile station shall replace the  
Candidate Frequency Neighbor Set with all neighbor pilots specified  
in the *Candidate Frequency Search Request Message*. Specifically, the  
mobile station shall store the following:
  - 28            ◊ Set the NGHBR\_PN [field of the Candidate Frequency Neighbor Set  
Pilot Record](#) to  $\text{NGHBR\_PN}_R$ .
  - 29
  - 30            ◊ Set the ADD\_PILOT\_REC\_INCL field [of the Candidate Frequency  
Neighbor Set Pilot Record](#) to  $\text{ADD\_PILOT\_REC\_INCL}_R$ . If  
 $\text{ADD\_PILOT\_REC\_INCL}_R$  is equal to '1', the mobile station shall  
store the following:
    - 34              – Set the NGHBR\_PILOT\_REC\_TYPE field of the Candidate  
Frequency Neighbor Set Pilot Record to  
 $\text{NGHBR\_PILOT\_REC\_TYPE}_R$ .
    - 35
    - 36

- If NGHBR\_PILOT\_REC\_TYPE<sub>r</sub> equals '000', the mobile station shall set the TD\_POWER\_LEVEL and TD MODE fields of the Candidate Frequency Neighbor Set Pilot Record to TD\_POWER\_LEVEL<sub>r</sub> and set the TD\_MODE field of NGHBR\_PILOT\_REC to TD\_MODE<sub>r</sub>, respectively.
- If NGHBR\_PILOT\_REC\_TYPE<sub>r</sub> is equal to '001', the mobile station shall
  - + Set the AUX\_PILOT\_QOF field of the Candidate Frequency Neighbor Set Pilot Record to QOF<sub>r</sub>.
  - + Set the AUX\_PILOT\_WALSH\_CODE field of the Candidate Frequency Neighbor Set Pilot Record to AUX\_PILOT\_WALSH<sub>r</sub> with the Walsh Code length specified by WALSH\_LENGTH<sub>r</sub>.
- If NGHBR\_PILOT\_REC\_TYPE<sub>r</sub> is equal to '010', the mobile station shall:
  - + Set the AUX\_PILOT\_TD\_QOF field of the Candidate Frequency Neighbor Set Pilot Record to QOF<sub>r</sub>.
  - + Set the AUX\_PILOT\_WALSH\_CODE field of the Candidate Frequency Neighbor Set Pilot Record to AUX\_WALSH<sub>r</sub> with the Walsh Code length specified by WALSH\_LENGTH<sub>r</sub>.
  - + Set the AUX\_TD\_POWER\_LEVEL field of the Candidate Frequency Neighbor Set Pilot Record to AUX\_TD\_POWER\_LEVEL<sub>r</sub>.
  - + Set the TD\_MODE field of the Candidate Frequency Neighbor Set Pilot Record to TD\_MODE<sub>r</sub>.
- If NGHBR\_PILOT\_REC\_TYPE<sub>r</sub> is equal to '011', the mobile station shall:
  - + Set the SR3\_PRIMARY\_PILOT field of Candidate Frequency Neighbor Set Pilot Record to SR3\_PRIMARY\_PILOT<sub>r</sub>.
  - + Set the SR3\_PILOT\_POWER1 field of Candidate Frequency Neighbor Set Pilot Record to SR3\_PILOT\_POWER1<sub>r</sub>.
  - + Set the SR3\_PILOT\_POWER2 field of Candidate Frequency Neighbor Set Pilot Record to SR3\_PILOT\_POWER2<sub>r</sub>.
- If NGHBR\_PILOT\_REC\_TYPE<sub>r</sub> is equal to '100', the mobile station shall:
  - + Set the SR3\_PRIMARY\_PILOT field of Candidate Frequency Neighbor Set Pilot Record to SR3\_PRIMARY\_PILOT<sub>r</sub>.
  - + Set the SR3\_PILOT\_POWER1 field of Candidate Frequency Neighbor Set Pilot Record to SR3\_PILOT\_POWER1<sub>r</sub>.

- + Set the SR3\_PILOT\_POWER2 field of Candidate Frequency Neighbor Set Pilot Record to SR3\_PILOT\_POWER2<sub>r</sub>.
- + Set the AUX\_PILOT\_QOF field of Candidate Frequency Neighbor Set Pilot Record to QOF<sub>r</sub>.
- + Set the AUX\_PILOT\_WALSH\_CODE field of Candidate Frequency Neighbor Set Pilot Record to AUX\_PILOT\_WALSH<sub>r</sub> with the Walsh Code length specified by WALSH\_LENGTH<sub>r</sub>.
- + If ADD\_INFO\_INCL1<sub>r</sub> is equal to '1', set the AUX\_PILOT\_QOF1 field of Candidate Frequency Neighbor Set Pilot Record to QOF1<sub>r</sub> and set the AUX\_PILOT\_WALSH\_CODE1 field of Candidate Frequency Neighbor Set Pilot Record to AUX\_PILOT\_WALSH1<sub>r</sub> with the Walsh Code length specified by WALSH\_LENGTH1<sub>r</sub>; otherwise, set the AUX\_PILOT\_QOF1 field of Candidate Frequency Neighbor Set Pilot Record to QOF<sub>r</sub> and set the AUX\_PILOT\_WALSH\_CODE1 field of Candidate Frequency Neighbor Set Pilot Record to AUX\_PILOT\_WALSH<sub>r</sub> with the Walsh Code length specified by WALSH\_LENGTH<sub>r</sub>.
- + If ADD\_INFO\_INCL2<sub>r</sub> is equal to '1', set the AUX\_PILOT\_QOF2 field of Candidate Frequency Neighbor Set Pilot Record to QOF2<sub>r</sub> and set the AUX\_PILOT\_WALSH\_CODE2 field of Candidate Frequency Neighbor Set Pilot Record to AUX\_PILOT\_WALSH2<sub>r</sub> with the Walsh Code length specified by WALSH\_LENGTH2<sub>r</sub>; otherwise, set the AUX\_PILOT\_QOF2 field of Candidate Frequency Neighbor Set Pilot Record to QOF<sub>r</sub> and set the AUX\_PILOT\_WALSH\_CODE2 field of Candidate Frequency Neighbor Set Pilot Record to AUX\_PILOT\_WALSH<sub>r</sub> with the Walsh Code length specified by WALSH\_LENGTH<sub>r</sub>.
- o If PILOT\_UPDATE is equal to '1' and CF\_SEARCH\_PRIORITY\_INCL<sub>s</sub> is equal to '1', the mobile station shall store the search priority (SEARCH\_PRIORITY<sub>s</sub> = SEARCH\_PRIORITY<sub>r</sub>) associated with each of the neighboring base stations contained in the Candidate Frequency Neighbor Set.
- o If PILOT\_UPDATE is equal to '1' and CF\_SRCH\_WIN\_NGHBR\_INCL<sub>s</sub> is equal to '1', the mobile station shall perform the following:
  - ◊ Store the neighbor pilot channel search window size (SRCH\_WIN\_NGHBR<sub>s</sub> = SRCH\_WIN\_NGHBR<sub>r</sub>) associated with each of the neighboring base stations contained in the Candidate Frequency Neighbor Set,

- 1               ◊ If CF\_SRCH\_OFFSET\_INCL<sub>r</sub> equals to ‘1’, store the neighbor pilot  
 2               channel search window offset (SRCH\_OFFSET\_NGHBR<sub>s</sub> =  
 3               SRCH\_OFFSET\_NGHBR<sub>r</sub>) associated with each of the neighboring  
 4               base stations contained in the Candidate Frequency Neighbor Set.
- 5               o If PILOT\_UPDATE is equal to ‘1’, the mobile station shall replace the  
 6               Candidate Frequency Search Set with all flagged pilots (those with the  
 7               corresponding SEARCH\_SET field set to ‘1’) specified in the *Candidate*  
 8               *Frequency Search Request Message*.
- 9               — o ~~Search\_offset\_time (If ALIGN\_TIMING<sub>r</sub> is equal to ‘1’,  
 10               SEARCH\_OFFSET<sub>s</sub> = SEARCH\_OFFSET<sub>r</sub>; otherwise,  
 11               SEARCH\_OFFSET<sub>s</sub> = ‘000000’)~~
- 12               + If ALIGN\_TIMING<sub>r</sub> is equal to ‘1’ and the mobile station will align its  
 13               search as requested by the base station, the mobile station shall set  
 14               ALIGN\_TIMING\_USED<sub>s</sub> to ‘1’ and SEARCH\_OFFSET<sub>s</sub> to  
 15               SEARCH\_OFFSET<sub>r</sub>; otherwise, the mobile station shall  
 16               set ALIGN\_TIMING\_USED<sub>s</sub> to ‘0’ and SEARCH\_OFFSET<sub>s</sub> to ‘000000’.
- 17               + If the mobile station sets the PCG\_OFF\_TIMES field of the *Candidate*  
 18               *Frequency Search Response Message* to ‘1’, it shall set  
 19               SEARCH\_TIME\_RESOLUTION<sub>s</sub> to 0.00125; otherwise, it shall set  
 20               SEARCH\_TIME\_RESOLUTION<sub>s</sub> to 0.02.
- 21               + If SEARCH\_TYPE<sub>r</sub> is equal to ‘01’, the mobile station shall perform a  
 22               single search of the Candidate Frequency Search Set, as described in  
 23               2.6.6.2.8.3.1. If SEARCH\_TYPE<sub>r</sub> is equal to ‘11’, the mobile station shall  
 24               perform the periodic search procedures, as described in 2.6.6.2.8.3.2.

**Table 2.6.6.2.5.1-1. Search Parameter Settings**

| NGHBR_SRCH_MODE    | SEARCH_PRIORITY_INCL    | SRCH_WIN_NGHBR_INCL    |
|--------------------|-------------------------|------------------------|
| CF_NGHBR_SRCH_MODE | CF_SEARCH_PRIORITY_INCL | CF_SRCH_WIN_NGHBR_INCL |
| 00                 | 0                       | 0                      |
| 01                 | 1                       | 0                      |
| 10                 | 0                       | 1                      |
| 11                 | 1                       | 1                      |

27  
 28               If SEARCH\_MODE<sub>r</sub> is equal to ‘0001’, and if the mobile station supports analog  
 29               searching, the mobile station shall process the *Candidate Frequency Search Request*  
 30               *Message* as follows:

- 1     • The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field  
 2       set to ‘00001101’ (search period too short), if SEARCH\_TYPE<sub>r</sub> is equal to ‘11’ and  
 3       search\_period is less than (max (fwd\_time, rev\_time) + T71m) seconds where  
 4       search\_period, fwd\_time and rev\_time are defined below.

5           (In the following, *rec\_search\_set* is the set of analog frequencies specified in the  
 6           *Candidate Frequency Search Request Message*.)

7           *search\_period* = time period corresponding to SEARCH\_PERIOD<sub>r</sub> shown in  
 8           Table 2.6.6.2.8.3.2-1

9           *fwd\_time* = the mobile station’s estimate of the total length of time, in  
 10          seconds, for which the mobile station will need to suspend its  
   11          current Forward Traffic Channel processing in order to tune to  
   12          each analog frequency in *rec\_search\_set* and measure its  
   13          strength, and to re-tune to the Serving Frequency; if the mobile  
   14          station searches *rec\_search\_set* in multiple visits, *fwd\_time* is  
   15          the total time for all visits away from the Serving Frequency in a  
   16          search period (see 2.6.6.2.10.2)

17           *rev\_time* = the mobile station’s estimate of the total length of time, in  
 18          seconds, for which the mobile station will need to suspend its  
   19          current Reverse Traffic Channel processing in order to tune to  
   20          each analog frequency in *rec\_search\_set* and measure its  
   21          strength, and to re-tune to the Serving Frequency; if the mobile  
   22          station searches *rec\_search\_set* in multiple visits, *rev\_time* is the  
   23          total time for all visits away from the Serving Frequency in a  
   24          search period

- 25     • If the mobile station does not send a *Mobile Station Reject Order* in response to  
 26       the *Candidate Frequency Search Request Message*, it shall perform the following:
- 27       – The mobile station shall send a *Candidate Frequency Search Response*  
 28       *Message* in assured mode, within T56m seconds of receiving the *Candidate*  
 29       *Frequency Search Request Message*. The mobile station shall set the fields of  
 30       the *Candidate Frequency Search Response Message* as follows:
- 31        + The mobile station shall set TOTAL\_OFF\_TIME\_FWD and  
 32           TOTAL\_OFF\_TIME\_REV to its estimate of the total number of frames or  
 33           power control groups for which it will need to suspend its current  
 34           Forward Traffic Channel processing and Reverse Traffic Channel  
 35           processing, respectively, in order to tune to each analog frequency in  
 36           *rec\_search\_set*, to measure its strength, and to re-tune to the Serving  
 37           Frequency (see 2.6.6.2.8.3.2). If the mobile station searches  
 38           *rec\_search\_set* in multiple visits away from the Serving Frequency, the  
 39           mobile station shall report the total number of frames or power control  
 40           groups in all visits in a search period for which it will need to suspend its  
 41           current Forward Traffic Channel and the Reverse Traffic Channel  
 42           processing.

- + The mobile station shall set MAX\_OFF\_TIME\_FWD and MAX\_OFF\_TIME\_REV to its estimate of the maximum number of frames or power control groups for which it will need to suspend its current Forward Traffic Channel processing and Reverse Traffic Channel processing, respectively, during any single visit away from the Serving Frequency, to search a subset of *rec\_search\_set*, and to re-tune to the Serving Frequency.
- + The mobile station shall set PCG\_OFF\_TIMES to ‘1’ if TOTAL\_OFF\_TIME\_FWD, MAX\_OFF\_TIME\_FWD, TOTAL\_OFF\_TIME\_-REVFWD and MAX\_OFF\_TIME\_REVFWD are expressed in units of power control groups. If these time estimates are expressed in units of frames, the mobile station shall set PCG\_OFF\_TIMES to ‘0’. The mobile station shall not use power control groups as the unit of delay\_duration if P\_REV\_IN\_USE<sub>S</sub> is less than six.
- + If ALIGN\_TIMING<sub>r</sub> is equal to ‘1’, the mobile station shall set ALIGN\_TIMING\_USED to ‘1’ to indicate if it will align its search as requested by the base station; otherwise, the mobile station shall set ALIGN\_TIMING\_USED to ‘0’. If ALIGN\_TIMING\_USED is set to ‘1’, the mobile station shall set MAX\_NUM\_VISITS to the maximum number of visits per search period minus one.\_and,\_if MAX\_NUM\_VISITS is not equal to 0, the mobile station shall set INTER\_VISIT\_TIME, in units of frames or power control groups, to its estimate of the time between subsequent the beginning of consecutive visits away from the Serving Frequency within the same search period.
- When the message takes effect, the mobile station shall perform the following actions:
  - + If any periodic search is in progress, the mobile station shall abort it (see 2.6.6.2.8.3.4 and 2.6.6.2.10.4).
  - + Store the following parameters from the *Candidate Frequency Search Request Message*:
    - o *Candidate Frequency Search Request Message* sequence number (CFSRM\_SEQ<sub>S</sub> = CFSRM\_SEQ<sub>r</sub>)
    - o Periodic search flag: If SEARCH\_TYPE<sub>r</sub> is equal to ‘11’, the mobile station shall set PERIODIC\_SEARCH<sub>S</sub> to ‘1’; otherwise, the mobile station shall set PERIODIC\_SEARCH<sub>S</sub> to ‘0’.
    - o Search period for the analog frequencies search (SEARCH\_PERIOD<sub>S</sub> = SEARCH\_PERIOD<sub>r</sub>)
    - o Candidate Frequency search mode (SEARCH\_MODE<sub>S</sub> = SEARCH\_MODE<sub>r</sub>)
    - o Band class for the analog frequencies (CF\_CDMABAND<sub>S</sub> = BAND\_CLASS<sub>r</sub>)

- 1        o Serving Frequency total pilot  $E_C$  threshold  
   2        ( $SF_{TOTAL\_EC\_THRESH_S} = SF_{TOTAL\_EC\_THRESH_R}$ )
- 3        o Serving Frequency total pilot  $E_C/I_0$  threshold  
   4        ( $SF_{TOTAL\_EC\_IO\_THRESH_S} = SF_{TOTAL\_EC\_IO\_THRESH_R}$ )
- 5        o Candidate Frequency Analog Search Set: The mobile station shall  
   6        replace the Candidate Frequency Analog Search Set with the analog  
   7        frequencies included in the *Candidate Frequency Search Request*  
   8        *Message*.
- 9        ~~o Search offset time (If  $ALIGN\_TIMING_R$  is equal to '1',  $SEARCH\_OFFSET_S = SEARCH\_OFFSET_R$ ; otherwise,  $SEARCH\_OFFSET_S = '000000'$ )~~
- 10      + If  $ALIGN\_TIMING_R$  is equal to '1' and the mobile station will align its  
   11     search as requested by the base station, the mobile station shall set  
   12      $ALIGN\_TIMING\_USED_S$  to '1' and  $SEARCH\_OFFSET_S$  to  
   13      $SEARCH\_OFFSET_R$ ; otherwise, the mobile station shall set  
   14      $ALIGN\_TIMING\_USED_S$  to '0' and  $SEARCH\_OFFSET_S$  to '000000'.
- 15      + If the mobile station sets the  $PCG\_OFF\_TIMES$  field of the *Candidate*  
   16     *Frequency Search Response Message* to '1', it shall set  
   17      $SEARCH\_TIME\_RESOLUTION_S$  to 0.00125; otherwise, it shall set  
   18      $SEARCH\_TIME\_RESOLUTION_S$  to 0.02.
- 19      + If  $SEARCH\_TYPE_R$  is equal to '01', the mobile station shall perform a  
   20     single search of the Candidate Frequency Analog Search Set as described  
   21     in 2.6.6.2.10.1. If  $SEARCH\_TYPE_R$  is equal to '11', the mobile station  
   22     shall perform the periodic search procedures described in 2.6.6.2.10.2.

24     6. *Candidate Frequency Search Control Message*: The mobile station shall process the  
 25     message as follows:

26     If  $SEARCH\_MODE_S$  is equal to '0000':

- 27        • The mobile station shall send a *Mobile Station Reject Order* with the  $ORDQ$  field  
   28        set to '00001010' (search set not specified), if  $SEARCH\_TYPE_R$  is not equal to '00'  
   29        and the Candidate Frequency Search Set is empty.
- 30        • The mobile station shall send a *Mobile Station Reject Order* with the  $ORDQ$  field  
   31        set to '00001011' (invalid search request), if  $SEARCH\_TYPE_R$  is not equal to '00'  
   32        and the Candidate Frequency is the same as the Serving Frequency  
   33        ( $CF_{CDMABAND_S}$  is equal to  $CDMABAND_S$  and  $CF_{CDMACH_S}$  is equal to  
   34         $CDMACH_S$ ).
- 35        • The mobile station shall send a *Mobile Station Reject Order* with the  $ORDQ$  field  
   36        set to '00001101' (search period too short), if  $SEARCH\_TYPE_R$  is equal to '11' and  
   37         $search\_period$  is less than  $(max(fwd\_time, rev\_time) + T_{71m})$  seconds, where  
   38         $search\_period$  = time period corresponding to  $SEARCH\_PERIOD_R$  shown in  
   39        Table 2.6.6.2.8.3.2-1,

1                   *fwd\_time* = the mobile station's estimate of the total length of time, in  
 2                   seconds, for which the mobile station will need to suspend its  
 3                   current Forward Traffic Channel processing in order to tune to  
 4                   the Candidate Frequency, to search the Candidate Frequency  
 5                   Search Set and to re-tune to the Serving Frequency; if the  
 6                   mobile station searches the Candidate Frequency Search Set in  
 7                   multiple visits, *fwd\_time* is the total time for all visits to the  
 8                   Candidate Frequency in a search period (see 2.6.6.2.8.3.2),

9                   and

10                  *rev\_time* = the mobile station's estimate of the total length of time, in  
 11                  seconds, for which the mobile station will need to suspend its  
 12                  current Reverse Traffic Channel processing in order to tune to  
 13                  the Candidate Frequency, to search the Candidate Frequency  
 14                  Search Set and to re-tune to the Serving Frequency; if the  
 15                  mobile station searches the Candidate Frequency Search Set in  
 16                  multiple visits, *rev\_time* is the total time for all visits to the  
 17                  Candidate Frequency in a search period.

- 18                  • If the mobile station does not reject the *Candidate Frequency Search Control*  
 19                  *Message*, it shall perform the following actions when the message takes effect:
  - 20                   – If any periodic search is in progress, the mobile station shall abort it (see  
                     2.6.6.2.8.3.4 and 2.6.6.2.10.4).
  - 21                   – If ALIGN\_TIMING<sub>r</sub> is equal to '1' and the mobile station will align its search  
                     as requested by the base station, the mobile station shall set  
                     ALIGN\_TIMING\_USED<sub>s</sub> to '1'; otherwise, the mobile station shall set  
                     ALIGN\_TIMING\_USED<sub>s</sub> to '0' and SEARCH\_OFFSET<sub>s</sub> to '000000'.
  - 22                   – If SEARCH\_TYPE<sub>r</sub> is equal to '00', the mobile station shall set  
                     PERIODIC\_SEARCH<sub>s</sub> to '0'.
  - 23                   – If SEARCH\_TYPE<sub>r</sub> is equal to '01':
    - 24                      + The mobile station shall set PERIODIC\_SEARCH<sub>s</sub> to '0'.
    - 25                      + The mobile station shall perform a single search of the Candidate  
                         Frequency Search Set, as described in 2.6.6.2.8.3.1.
  - 26                   – If SEARCH\_TYPE<sub>r</sub> is equal to '11':
    - 27                      + The mobile station shall set PERIODIC\_SEARCH<sub>s</sub> to '1'.
    - 28                      + The mobile station shall perform the periodic search procedures for the  
                         Candidate Frequency Search Set, as described in 2.6.6.2.8.3.2.

36                  If SEARCH\_MODE<sub>s</sub> is equal to '0001':

- 37                  • The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field  
 38                  set to '00001010' (search set not specified), if SEARCH\_TYPE<sub>r</sub> is not equal to '00'  
 39                  and the Candidate Frequency Analog Search Set is empty.

- 1     • The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field  
 2       set to ‘00001101’ (search period too short), if SEARCH\_TYPE<sub>r</sub> is equal to ‘11’ and  
 3       search\_period is less than (max (fwd\_time, rev\_time) + T71m) seconds, where  
 4           search\_period = time period corresponding to SEARCH\_PERIOD<sub>r</sub> shown in  
 5           Table 2.6.6.2.8.3.2-1,  
 6           fwd\_time = the mobile station’s estimate of the total length of time, in  
 7           seconds, for which the mobile station will need to suspend its  
 8           current Forward Traffic Channel processing in order to tune to  
 9           each analog frequency in the Candidate Frequency Analog  
 10          Search Set and measure its strength, and to re-tune to the  
 11          Serving Frequency; if the mobile station searches the Candidate  
 12          Frequency Analog Search Set in multiple visits, fwd\_time is the  
 13          total time for all visits away from the Serving Frequency in a  
 14          search period (see 2.6.6.2.10.2),

15       and

16           rev\_time = the mobile station’s estimate of the total length of time, in  
 17           seconds, for which the mobile station will need to suspend its  
 18           current Reverse Traffic Channel processing in order to tune to  
 19           each analog frequency in the Candidate Frequency Analog  
 20          Search Set and measure its strength, and to re-tune to the  
 21          Serving Frequency; if the mobile station searches the Candidate  
 22          Frequency Analog Search Set in multiple visits, fwd\_time is the  
 23          total time for all visits away from the Serving Frequency in a  
 24          search period (see 2.6.6.2.10.2).

- 25     • If the mobile station does not reject the *Candidate Frequency Search Control*  
 26       *Message*, it shall perform the following actions when the message takes effect:
  - 27         – If any periodic search is in progress, the mobile station shall abort it (see  
 28           2.6.6.2.8.3.4 and 2.6.6.2.10.4).
  - 29         – If ALIGN\_TIMING<sub>r</sub> is equal to ‘1’ and the mobile station will align its search  
 30           as requested by the base station, the mobile station shall set  
 31           ALIGN\_TIMING\_USED<sub>s</sub> to ‘1’; otherwise, the mobile station shall set  
 32           ALIGN\_TIMING\_USED<sub>s</sub> to ‘0’ and SEARCH\_OFFSET<sub>s</sub> to ‘000000’.
  - 33         – If SEARCH\_TYPE<sub>r</sub> is equal to ‘00’, the mobile station shall set  
 34           PERIODIC\_SEARCH<sub>s</sub> to ‘0’.
  - 35         – If SEARCH\_TYPE<sub>r</sub> is equal to ‘01’:
    - 36           + The mobile station shall set PERIODIC\_SEARCH<sub>s</sub> to ‘0’.
    - 37           + The mobile station shall perform a single search of the Candidate  
 38           Frequency Analog Search Set, as described in 2.6.6.2.10.1.
  - 39         – If SEARCH\_TYPE<sub>r</sub> is equal to ‘11’:
    - 40           + The mobile station shall set PERIODIC\_SEARCH<sub>s</sub> to ‘1’.

- 1       + The mobile station shall perform the periodic search procedures for the  
 2           Candidate Frequency Analog Search Set, as described in 2.6.6.2.10.2.

3     7. *Extended Neighbor List Update Message*: The mobile station shall update its  
 4           neighbor set as specified in 2.6.6.2.6.3 and perform the following:

- 5       • If NGHBR\_SRCH\_MODE<sub>r</sub> is equal to '01' or '11', the mobile station shall store  
 6           the search priority (SEARCH\_PRIORITY<sub>s</sub> = SEARCH\_PRIORITY<sub>r</sub>) associated with  
 7           each of the neighboring base stations contained in the *Extended Neighbor List*  
 8           *Update Message* which are in the mobile's neighbor set.
- 9       • If NGHBR\_SRCH\_MODE<sub>r</sub> is equal to '01' or '00', the mobile station shall set the  
 10           SRCH\_OFFSET\_INCL<sub>s</sub> field '0'.
- 11       • If NGHBR\_SRCH\_MODE<sub>r</sub> is equal to '10' or '11', the mobile station shall perform  
 12           the following:
  - 13           – Store the neighbor pilot channel search window size  
 14           (SRCH\_WIN\_NGHBR<sub>s</sub> = SRCH\_WIN\_NGHBR<sub>r</sub>) associated with each of the  
 15           neighboring base stations contained in the *Extended Neighbor List Updated*  
 16           *Message* which are in the mobile's neighbor set,
  - 17           – If SRCH\_OFFSET\_INCL<sub>r</sub> equals to '1', set the SRCH\_OFFSET\_NGHBR field of  
 18           NGHBR\_REC[i] to the i<sup>th</sup> occurrence of SRCH\_OFFSET\_NGHBR<sub>r</sub>,
  - 19           – Set SRCH\_OFFSET\_INCL<sub>s</sub> to SRCH\_OFFSET\_INCL<sub>r</sub>.
- 20       • The mobile station shall update the default search window size for its Neighbor  
 21           Set (SRCH\_WIN\_N<sub>s</sub> = SRCH\_WIN\_N<sub>r</sub>).
- 22       • The mobile station shall set SEARCH\_PRIORITY\_INCL<sub>s</sub> and  
 23           SRCH\_WIN\_NGHBR\_INCL<sub>s</sub> to the value specified in Table 2.6.6.2.5.1-1  
 24           corresponding to NGHBR\_SRCH\_MODE<sub>r</sub>.
- 25       • If USE\_TIMING is equal to '1', the mobile station shall store the timing included  
 26           flag (TIMING\_INCL) associated with each of the neighboring base stations  
 27           contained in the *Extended Neighbor List Update Message* which are in the mobile  
 28           station neighbor set; otherwise the mobile station shall set the timing included  
 29           flag (TIMING\_INCL) associated with each of the neighboring base stations to '0'.
- 30       • If USE\_TIMING is equal to '1' and TIMING\_INCL<sub>r</sub> is equal to '1', the mobile  
 31           station shall store the neighbor transmit time offset (NGHBR\_TX\_OFFSET =  
 32           NGHBR\_TX\_OFFSET<sub>r</sub>) associated with each of the neighboring base stations  
 33           contained in the *Extended Neighbor List Update Message* which are in the mobile  
 34           station neighbor set.
- 35       • If USE\_TIMING is equal to '1' and the TIMING\_INCL is equal to '1', then the  
 36           mobile station shall perform the following:

- If the GLOBAL\_TIMING\_INCL field is equal to '1', then the mobile station shall store the neighbor transmit time duration ( $\text{NGHBR\_TX\_DURATION} = \text{GLOBAL\_TX\_DURATION}_r$ ) and the neighbor transmit time duration ( $\text{NGHBR\_TX\_PERIOD} = \text{GLOBAL\_TX\_PERIOD}_r$ ) contained in the *Extended Neighbor List Update Message*.
- If the GLOBAL\_TIMING\_INCL field is equal to '0', then the mobile station shall store the neighbor transmit time duration ( $\text{NGHBR\_TX\_DURATION} = \text{NGHBR\_TX\_DURATION}_r$ ) and the neighbor transmit time duration ( $\text{NGHBR\_TX\_PERIOD} = \text{NGHBR\_TX\_PERIOD}_r$ ) associated with each of the neighboring base stations contained in the *Extended Neighbor List Update Message* which are in the mobile station neighbor set.
- For each of the neighboring base stations contained in the *General Neighbor List Message*, the mobile station shall set ADD\_PILOT\_REC\_INCL field of  $\text{NGHBR\_REC}[i]$  to the  $i^{\text{th}}$  occurrence of ADD\_PILOT\_REC\_INCL<sub>r</sub>. If ADD\_PILOT\_REC\_INCL<sub>r</sub> equals '1', for each pilot, the mobile station shall also perform the following:
  - Set the NGHBR\_PILOT\_REC\_TYPE field of NGHBR\_PILOT\_REC to NGHBR\_PILOT\_REC\_TYPE<sub>r</sub>.
  - If NGHBR\_PILOT\_REC\_TYPE<sub>r</sub> is equal to '000'. The mobile station shall set the TD\_POWER\_LEVEL field of NGHBR\_PILOT\_REC to TD\_POWER\_LEVEL<sub>r</sub> and set the TD\_MODE field of NGHBR\_PILOT\_REC to TD\_MODE<sub>r</sub>.
  - If NGHBR\_PILOT\_REC\_TYPE<sub>r</sub> is equal to '001', the mobile station shall:
    - + Set the AUX\_PILOT\_QOF field of NGHBR\_PILOT\_REC to QOF<sub>r</sub>
    - + Set the AUX\_PILOT\_WALSH\_CODE field of NGHBR\_PILOT\_REC to AUX\_PILOT\_WALSH<sub>r</sub> with the Walsh Code length specified by WALSH\_LENGTH<sub>r</sub>
  - If NGHBR\_PILOT\_REC\_TYPE<sub>r</sub> is equal to '010', the mobile station shall:
    - + Set the AUX\_PILOT\_TD\_QOF field of NGHBR\_PILOT\_REC to QOF<sub>r</sub>.
    - + Set the AUX\_PILOT\_WALSH\_CODE field of NGHBR\_PILOT\_REC to AUX\_WALSH<sub>r</sub> with the Walsh Code length specified by WALSH\_LENGTH<sub>r</sub>.
    - + Set the AUX\_TD\_POWER\_LEVEL field of NGHBR\_PILOT\_REC to AUX\_TD\_POWER\_LEVEL<sub>r</sub>.
    - + Set the TD\_MODE field of NGHBR\_PILOT\_REC to TD\_MODE<sub>r</sub>.
  - If NGHBR\_PILOT\_REC\_TYPE<sub>r</sub> is equal to '011', the mobile station shall:
    - + Set the SR3\_PRIMARY\_PILOT field of NGHBR\_PILOT\_REC to SR3\_PRIMARY\_PILOT<sub>r</sub>.
    - + Set the SR3\_PILOT\_POWER1 field of NGHBR\_PILOT\_REC to SR3\_PILOT\_POWER1<sub>r</sub>.

- 1        + Set the SR3\_PILOT\_POWER2 field of NGHBR\_PILOT\_REC to  
2              SR3\_PILOT\_POWER2<sub>r</sub>.
- 3        - If NGHBR\_PILOT\_REC\_TYPE<sub>r</sub> is equal to '100', the mobile station shall:
  - 4              + Set the SR3\_PRIMARY\_PILOT field of NGHBR\_PILOT\_REC to  
5                   SR3\_PRIMARY\_PILOT<sub>r</sub>.
  - 6              + Set the SR3\_PILOT\_POWER1 field of NGHBR\_PILOT\_REC to  
7                   SR3\_PILOT\_POWER1<sub>r</sub>.
  - 8              + Set the SR3\_PILOT\_POWER2 field of NGHBR\_PILOT\_REC to  
9                   SR3\_PILOT\_POWER2<sub>r</sub>.
  - 10             + Set the AUX\_PILOT\_QOF field of NGHBR\_PILOT\_REC to QOF<sub>r</sub>.
  - 11             + Set the AUX\_PILOT\_WALSH\_CODE field of NGHBR\_PILOT\_REC to  
12                   AUX\_PILOT\_WALSH<sub>r</sub> with the Walsh Code length specified by  
13                   WALSH\_LENGTH<sub>r</sub>.
  - 14             + If ADD\_INFO\_INCL1<sub>r</sub> is equal to '1', set the AUX\_PILOT\_QOF1 field of  
15                   NGHBR\_PILOT\_REC to QOF1<sub>r</sub> and set the AUX\_PILOT\_WALSH\_CODE1  
16                   field of NGHBR\_PILOT\_REC to AUX\_PILOT\_WALSH1<sub>r</sub> with the Walsh  
17                   Code length specified by WALSH\_LENGTH1<sub>r</sub>; otherwise, set the  
18                   AUX\_PILOT\_QOF1 field of NGHBR\_PILOT\_REC to QOF<sub>r</sub> and set the  
19                   AUX\_PILOT\_WALSH\_CODE1 field of NGHBR\_PILOT\_REC to  
20                   AUX\_PILOT\_WALSH<sub>r</sub> with the Walsh Code length specified by  
21                   WALSH\_LENGTH<sub>r</sub>.
  - 22             + If ADD\_INFO\_INCL2<sub>r</sub> is equal to '1', set the AUX\_PILOT\_QOF2 field of  
23                   NGHBR\_PILOT\_REC to QOF2<sub>r</sub> and set the AUX\_PILOT\_WALSH\_CODE2  
24                   field of NGHBR\_PILOT\_REC to AUX\_PILOT\_WALSH2<sub>r</sub> with the Walsh  
25                   Code length specified by WALSH\_LENGTH2<sub>r</sub>; otherwise, set the  
26                   AUX\_PILOT\_QOF2 field of NGHBR\_PILOT\_REC to QOF<sub>r</sub> and set the  
27                   AUX\_PILOT\_WALSH\_CODE2 field of NGHBR\_PILOT\_REC to  
28                   AUX\_PILOT\_WALSH<sub>r</sub> with the Walsh Code length specified by  
29                   WALSH\_LENGTH<sub>r</sub>.

30        8. *Supplemental Channel Assignment Message*: The mobile station shall process this  
31           message as follows:

32        The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set  
33           to the specified value if any of the following conditions is true, and shall not perform  
34           any other action described in this section for processing the *Supplemental Channel*  
35           *Assignment Message*:

- 36           • The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field  
37                   set to '00000110' (capability not supported), if the number of forward or reverse  
38                   Supplemental Code Channels specified in the *Supplemental Channel Assignment*  
39                   *Message* is greater than the maximum number of Supplemental Code Channels  
40                   supported by the mobile station.

- 1     • The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field  
2       set to '00000011' (message structure not acceptable), if both  
3       USE\_REV\_HDM\_SEQ and EXPL\_REV\_START\_TIME or both  
4       USE\_FOR\_HDM\_SEQ and EXPL\_FOR\_START\_TIME specified in the  
5       *Supplemental Channel Assignment Message* are set to '1'.  
6  
7     • The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field  
8       set to '00000100' (message field not in valid range), if PILOT\_PN specified in the  
9       *Supplemental Channel Assignment Message* is not in the Active Set and this  
      message is not linked with a *General Handoff Direction Message*.

10   If none of the above conditions is true, the mobile station shall perform the  
11   following.

- 12    • The mobile station shall store the following parameters from the *Supplemental*  
13      *Channel Assignment Message*:
  - 14       – Use *General Handoff Direction Message* forward sequence number indicator  
15       (USE\_FOR\_HDM\_SEQ<sub>s</sub> = USE\_FOR\_HDM\_SEQ<sub>r</sub>)
  - 16       – If USE\_FOR\_HDM\_SEQ<sub>r</sub> is equal to '1', then the mobile station shall store  
17       the following:
    - 18           + The sequence number of the *General Handoff Direction Message* to which  
19            this messaged is linked for the Forward Supplemental Code Channel  
20            assignment (FOR\_LINKED\_HDM\_SEQ<sub>s</sub> = FOR\_LINKED\_HDM\_SEQ<sub>r</sub>)
    - 21           + The forward Supplemental Code Channel assignment order  
22           (SCAM\_FOR\_ORDER<sub>s</sub> = least significant bit of FOR\_SUP\_CONFIG<sub>r</sub>)
    - 23           + The forward duration assignment indicator  
24           (SCAM\_FOR\_DURATION\_MODE<sub>s</sub> = USE\_FOR\_DURATION<sub>r</sub>).  
25
    - 26       – Use *General Handoff Direction Message* reverse sequence number indicator  
27       (USE\_REV\_HDM\_SEQ<sub>s</sub> = USE\_REV\_HDM\_SEQ<sub>r</sub>)
    - 28       – If USE\_REV\_HDM\_SEQ<sub>r</sub> is equal to '1', then the mobile station shall store  
      the following:
      - 29           + The sequence number of the *General Handoff Direction Message* to which  
30            this messaged is linked for the Reverse Supplemental Code Channel  
31            assignment (REV\_LINKED\_HDM\_SEQ<sub>s</sub> = REV\_LINKED\_HDM\_SEQ<sub>r</sub>)
      - 32           + The reverse duration assignment indicator  
33           (SCAM\_REV\_DURATION\_MODE<sub>s</sub> = USE\_REV\_DURATION<sub>r</sub>).  
34
  - 35    • If USE\_RETRY\_DELAY<sub>r</sub> is '0', then the mobile station shall store 0 as  
36       RETRY\_DELAY<sub>s</sub>. The mobile station may send subsequent *Supplemental*  
37       *Channel Request Messages* whenever RETRY\_DELAY<sub>s</sub> is set to 0.  
38  
39    • If USE\_RETRY\_DELAY<sub>r</sub> is set to '1', the mobile station shall interpret the  
40       *Supplemental Channel Assignment Message* as an indication that the base  
      station has specified a *Supplemental Channel Request Message* retry delay in  
      RETRY\_DELAY<sub>r</sub> as follows:

- The mobile station shall store the next system time 80 ms boundary +  $\text{RETRY\_DELAY}_r \times 320$  ms as  $\text{RETRY\_DELAY}_s$ . The mobile station shall not send any subsequent *Supplemental Channel Request Message* until after the system time stored in  $\text{RETRY\_DELAY}_s$ . At the system time stored in  $\text{RETRY\_DELAY}_s$ , the mobile station shall reset  $\text{RETRY\_DELAY}_s$  to 0.
- If  $\text{RETRY\_DELAY}_r$  is ‘00000000’, then the mobile station shall store 0 as  $\text{RETRY\_DELAY}_s$ . The mobile station may send subsequent *Supplemental Channel Request Messages* whenever  $\text{RETRY\_DELAY}_s$  is set to 0.
- If  $\text{RETRY\_DELAY}_r$  is ‘11111111’, then the mobile station shall store *infinity* as  $\text{RETRY\_DELAY}_s$ , and the mobile station shall not send any further *Supplemental Channel Request Messages* until the mobile station receives a new *Supplemental Channel Assignment Message* with no retry delay or a non-infinite retry delay specified, or until the mobile station receives a *General Handoff Direction Message* with a *CLEAR\_RETRY\_DELAY* indication set.
- If  $\text{REV\_INCLUDED}_r$  is equal to ‘1’, then the mobile station shall process Reverse Supplemental Code Channel assignment information for the *Supplemental Channel Assignment Message*. This information shall be processed as follows:
  - The mobile station shall store  $\text{USE\_T\_ADD\_ABORT}_r$ , the Reverse Supplemental Code Channel assignment T\_ADD abort indicator, as  $\text{USE\_T\_ADD\_ABORT}_s$ .
  - The mobile station shall store  $\text{REV\_DTX\_DURATION}_r$ , Reverse Supplemental Channel Discontinuous Transmission Duration, as  $\text{REV\_DTX\_DURATION}_s$ .
  - If  $\text{REV\_PARMS\_INCLUDED}_r$  is equal to ‘1’, the mobile station shall store the following:
    - +  $\text{T\_MULCHAN}_s = \text{T\_MULCHAN}_r$
    - +  $\text{BEGIN\_PREAMBLE}_s = \text{BEGIN\_PREAMBLE}_r$
    - +  $\text{RESUME\_PREAMBLE}_s = \text{RESUME\_PREAMBLE}_r$
  - If  $\text{IGNORE\_SCAM}_s$  is equal to ‘1’ and  $\text{SCRM\_SEQ\_NUM}_r$  is not present or is present and is not equal to  $\text{SCRM\_SEQ\_NUM}_s$ , then the mobile station shall not process the remaining Reverse Supplemental Code Channel assignment information in this message.
  - If  $\text{IGNORE\_SCAM}_s$  is equal to ‘1’ and  $\text{SCRM\_SEQ\_NUM}_r$  is present and is equal to  $\text{SCRM\_SEQ\_NUM}_s$ , then the mobile station shall set  $\text{IGNORE\_SCAM}_s$  to ‘0’.
  - The mobile station shall set  $\text{REV\_START\_TIME}_s$  as follows:
    - + If  $\text{EXPL\_REV\_START\_TIME}_r$  is equal to ‘1’, the mobile station shall set the  $\text{REV\_START\_TIME}_s$  to  $\text{REV\_START\_TIME}_r$ .
    - + If  $\text{USE\_REV\_HDM\_SEQ}_r$  is equal to ‘1’ and  $\text{REV\_LINKED\_HDM\_SEQ}_r$  is not equal to  $\text{HDM\_SEQ}_s$ , the mobile station shall set the  $\text{REV\_START\_TIME}_s$  to NULL.

- + If USE\_REV\_HDM\_SEQ<sub>r</sub> is equal to ‘1’ and REV\_LINKED\_HDM\_SEQ<sub>r</sub> is equal to HDM\_SEQ<sub>s</sub>, then the mobile station shall set the REV\_START\_TIME<sub>s</sub> to the action time of the *General Handoff Direction Message* that is linked to the *Supplemental Channel Assignment Message*.
- + If EXPL\_REV\_START\_TIME<sub>r</sub> is equal to ‘0’ and USE\_REV\_HDM\_SEQ<sub>r</sub> is equal to ‘0’, the mobile station shall set the REV\_START\_TIME<sub>s</sub> to the next 80 ms boundary following the action time of the *Supplemental Channel Assignment Message*.
- The mobile station shall set NUM\_REV\_CODES<sub>s</sub> to NUM\_REV\_CODES<sub>r</sub>. If REV\_START\_TIME<sub>s</sub> is not equal to NULL, the mobile station shall perform the following actions:
  - + If NUM\_REV\_CODES<sub>r</sub> is equal to ‘000’, the mobile station shall stop transmitting the Reverse Supplemental Code Channels at the start time specified by REV\_START\_TIME<sub>s</sub>.
  - + If NUM\_REV\_CODES<sub>r</sub> is not equal to ‘000’, the mobile station shall set PILOT\_GATING\_USE\_RATE to ‘0’ at the action time of the message and the mobile station may start transmitting on NUM\_REV\_CODES<sub>s</sub> Reverse Supplemental Code Channels at the start time specified by REV\_START\_TIME<sub>s</sub> for a duration of time specified by the following rules:
    - o If USE\_REV\_DURATION<sub>r</sub> is equal to ‘1’, the mobile station shall set REV\_DURATION<sub>s</sub> to REV\_DURATION<sub>r</sub>. The mobile station may continue transmitting on the Reverse Supplemental Code Channels for a period of (REV\_DURATION<sub>s</sub> × 80) ms, or until it receives the action time of a subsequent *General Handoff Direction Message* or a *Supplemental Channel Assignment Message* that specifies a different Reverse Supplemental assignment duration or start time.
    - o If USE\_REV\_DURATION<sub>r</sub> is equal to ‘0’, the mobile station may continue to transmit indefinitely on the Reverse Supplemental Code Channels, or until it receives the action time of a subsequent *General Handoff Direction Message* or a *Supplemental Channel Assignment Message* that specifies a different Reverse Supplemental assignment duration or start time.
- If FORINCLUDED is equal to ‘1’, then the mobile station shall process Forward Supplemental Code Channel assignment information as follows:
  - The mobile station shall assign a value to FOR\_START\_TIME<sub>s</sub> according to the following rules:
    - + If EXPL\_FOR\_START\_TIME is equal to ‘1’, the mobile station shall set the FOR\_START\_TIME<sub>s</sub> to FOR\_START\_TIME<sub>r</sub>.
    - + If USE\_FOR\_HDM\_SEQ<sub>r</sub> is equal to ‘1’ and FOR\_LINKED\_HDM\_SEQ<sub>r</sub> is not equal to HDM\_SEQ<sub>s</sub>, the mobile station shall set the FOR\_START\_TIME<sub>s</sub> to NULL.

- + If USE\_FOR\_HDM\_SEQ<sub>r</sub> is equal to '1' and FOR\_LINKED\_HDM\_SEQ<sub>r</sub> is equal to HDM\_SEQ<sub>s</sub>, then the mobile station shall set the FOR\_START\_TIME<sub>s</sub> to the action time of the *General Handoff Direction Message* that is linked to the *Supplemental Channel Assignment Message*.
- + If EXPL\_FOR\_START\_TIME<sub>r</sub> is equal to '0' and USE\_FOR\_HDM\_SEQ<sub>r</sub> equals '0', the mobile station shall set the FOR\_START\_TIME<sub>s</sub> to the action time of the *Supplemental Channel Assignment Message*.
- If FOR\_SUP\_CONFIG<sub>r</sub> is equal to '00' and FOR\_START\_TIME<sub>s</sub> is not equal to NULL, the mobile station should stop processing the Forward Supplemental Code Channels at the time specified by FOR\_START\_TIME<sub>s</sub>.
- If FOR\_SUP\_CONFIG<sub>r</sub> is equal to '01' and FOR\_START\_TIME<sub>s</sub> is not equal to NULL, the mobile station shall set PILOT\_GATING\_USE\_RATE to '0' at the action time of the message and start processing the Forward Supplemental Code Channels in the CODE\_CHAN\_LIST<sub>s</sub> at FOR\_START\_TIME<sub>s</sub> for a period of time specified by the following rules:
  - + If USE\_FOR\_DURATION is equal to '1', the mobile station shall set FOR\_DURATION<sub>s</sub> to FOR\_DURATION<sub>r</sub>. The mobile station shall continue processing the Forward Supplemental Code Channels for a period of (FOR\_DURATION<sub>s</sub> × 80) ms, or until it receives the action time of a subsequent *Supplemental Channel Assignment Message* or a *General Handoff Direction Message* that specifies a different Forward Supplemental assignment duration or start time.
  - + If USE\_FOR\_DURATION<sub>r</sub> is equal to '0', the mobile station shall continue processing the Forward Supplemental Code Channels until it receives the action time of a subsequent *Supplemental Channel Assignment Message* or a *General Handoff Direction Message* that specifies a different Forward Supplemental assignment duration or start time.
- If FOR\_SUP\_CONFIG<sub>r</sub> is equal to '10', the mobile station shall perform the following:
  - + The mobile station shall update the CODE\_CHAN\_LIST<sub>s</sub> as specified in 2.6.8.
  - + If FOR\_START\_TIME<sub>s</sub> is not equal to NULL the mobile station should stop processing Forward Supplemental Code Channels at the time specified by FOR\_START\_TIME<sub>s</sub>.
- If FOR\_SUP\_CONFIG<sub>r</sub> is equal to '11', the mobile station shall perform the following:
  - + The mobile station shall update the CODE\_CHAN\_LIST<sub>s</sub> as specified in 2.6.8.

- + If FOR\_START\_TIME<sub>s</sub> is not equal to NULL, then the mobile station shall set PILOT\_GATING\_USE\_RATE to '0' at the action time of the message and start processing the Forward Supplemental Code Channels in the CODE\_CHAN\_LIST<sub>s</sub> at the time specified by FOR\_START\_TIME<sub>s</sub> for a period of time specified by the following rules:
  - o If USE\_FOR\_DURATION<sub>r</sub> is equal to '1', the mobile station shall set FOR\_DURATION<sub>s</sub> to FOR\_DURATION<sub>r</sub>. The mobile station shall continue processing the Forward Supplemental Code Channels for (FOR\_DURATION<sub>s</sub> × 80) ms, until it receives a subsequent *Supplemental Channel Assignment Message* or a *General Handoff Direction Message* that specifies a different Forward Supplemental assignment duration or start time.
  - o If USE\_FOR\_DURATION<sub>r</sub> is equal to '0', the mobile station shall continue processing the Forward Supplemental Code Channels until it receives a subsequent *Supplemental Channel Assignment Message* or a *General Handoff Direction Message* that specifies a different Forward Supplemental assignment duration or start time.

9. *General Handoff Direction Message*: The mobile station shall process the message as follows:

In addition to the requirements in this section, if the SCR\_INCLUDED field is included in this message and is set to '1' the mobile station shall also process this message in accordance with the requirements for the active service subfunction (see 2.6.4.1.2.2).

The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to the specified value if any of the following conditions is true, and shall not perform any other action described in this section for processing the *General Handoff Direction Message*:

- The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to '00000110' (capability not supported), if the mobile station does not support the band class specified in the *General Handoff Direction Message*.
- The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to '00000110' (capability not supported), if the number of forward or reverse Supplemental Code Channels specified in the *General Handoff Direction Message* is greater than the maximum number of Supplemental Code Channels supported by the mobile station.
- If the SCR\_INCLUDED field is included in this message and is set to '1', the mobile station shall do the following:
  - The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to '00000111' (message cannot be handled by the current mobile station configuration), if the mobile station does not support the service configuration specified in the *General Handoff Direction Message*.

- 1            - The mobile station shall send a *Mobile Station Reject Order* (ORDQ =  
 2            '00000111') within T<sub>56m</sub> seconds, if the mobile station supports the service  
 3            configuration specified but does not accept the service configuration specified  
 4            in the *General Handoff Direction Message*.
- 5       • The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field  
 6            set to '00000111' (message cannot be handled by the current mobile station  
 7            configuration), if the NNSCR\_INCLUDED field is included and set to '1' and the  
 8            SCR\_INCLUDED field is either not included or included but set to '0', and the  
 9            mobile station does not support the configuration specified in the non-negotiable  
 10          service configuration information record in the *General Handoff Direction  
                 Message*.
- 12       • The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field  
 13            set to '00001010' (search set not specified), if the PERIODIC\_SEARCH field is  
 14            included in the *General Handoff Direction Message* and is set to '1', and the  
 15            Candidate Frequency Search Set is empty.
- 16       • The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field  
 17            set to '00001101' (search period too short), if the PERIODIC\_SEARCH field is  
 18            included in the *General Handoff Direction Message* and is set to '1', and  
 19            *search\_period* is less than (max (*fwd\_time*, *rev\_time*) + T<sub>71m</sub> seconds), where  
 20            *search\_period* = time period corresponding to SEARCH\_PERIOD<sub>S</sub> shown in  
 21            Table 2.6.6.2.8.3.2-1,
- 22            *fwd\_time* = the mobile station's estimate of the total length of time, in seconds,  
 23            for which the mobile station will need to suspend its current  
 24            Forward Traffic Channel processing in order to tune to the CDMA  
 25            Candidate Frequency, to search the Candidate Frequency Search  
 26            Set, and to re-tune to the Serving Frequency; if the mobile station  
 27            searches the Candidate Frequency Search Set in multiple visits,  
 28            *fwd\_time* is the total time for all visits to the CDMA Candidate  
 29            Frequency in a search period (see 2.6.6.2.8.3.2),
- 30            and
- 31            *rev\_time* = the mobile station's estimate of the total length of time, in seconds,  
 32            for which the mobile station will need to suspend its current Reverse  
 33            Traffic Channel processing in order to tune to the CDMA Candidate  
 34            Frequency, to search the Candidate Frequency Search Set, and to  
 35            re-tune to the Serving Frequency; if the mobile station searches the  
 36            Candidate Frequency Search Set in multiple visits, *rev\_time* is the  
 37            total time for all visits to the CDMA Candidate Frequency in a search  
 38            period.
- 39            If none of the above conditions is true, the mobile station shall perform the actions  
 40            described in the remainder of this section to process the *General Handoff Direction  
                 Message* at the action time of the message.

1       If EXTRA\_PARMS is equal to '1', the mobile station shall store the return on failure  
 2       indicator from the *General Handoff Direction Message* (RETURN\_IF\_HANDOFF\_FAIL<sub>s</sub>  
 3       = RETURN\_IF\_HANDOFF\_FAIL<sub>r</sub>); otherwise the mobile station shall set  
 4       RETURN\_IF\_HANDOFF\_FAIL<sub>s</sub> to '0'.

5       The mobile station shall set RETURN\_IF\_HANDOFF\_FAIL<sub>s</sub> to '0' (disable return on  
 6       failure) if any of the following conditions is true:

- 7       • If P\_REV\_IN\_USE<sub>s</sub> is less than or equal to four and the mobile station does not  
       support hard handoff with return on failure, or
- 9       • At least one of the pilots specified by the message is also included in the Active  
 10      Set prior to the action time of the message, and one of the following conditions is  
 11      true:
  - 12       – EXTRA\_PARMS is equal to '0', or
  - 13       – EXTRA\_PARMS is equal to '1', the message specifies the same Frequency  
       Assignment as the Serving Frequency (BAND\_CLASS<sub>r</sub> is equal to  
       CDMABAND<sub>s</sub> and CDMA\_FREQ<sub>r</sub> is equal to CDMACH<sub>s</sub>), and  
       FRAME\_OFFSET<sub>r</sub> is equal to FRAME\_OFFSET<sub>s</sub>.

17      The mobile station shall store the following parameters from its current  
 18      configuration:

- 19       • CDMA band class (SF\_CDMABAND<sub>s</sub> = CDMABAND<sub>s</sub>)
- 20       • Frequency assignment (SF\_CDMACH<sub>s</sub> = CDMACH<sub>s</sub>)
- 21       • Frame Offset (SF\_FRAME\_OFFSET<sub>s</sub> = FRAME\_OFFSET<sub>s</sub>)

22      If RETURN\_IF\_HANDOFF\_FAIL<sub>s</sub> is equal to '1', the mobile station shall also store the  
 23      following parameters from its current configuration:

- 24       • Protocol revision level  
       (SF\_P\_REV<sub>s</sub> = P\_REV<sub>s</sub>)
- 26       • Protocol revision level in use on the Serving Frequency  
       (SF\_P\_REV\_IN\_USE<sub>s</sub> = P\_REV\_IN\_USE<sub>s</sub>)
- 28       • Search window size for the Active Set and Candidate Set  
       (SF\_SRCH\_WIN\_A<sub>s</sub> = SRCH\_WIN\_A<sub>s</sub>)
- 30       • Search window size for the Neighbor Set  
       (SF\_SRCH\_WIN\_N<sub>s</sub> = SRCH\_WIN\_N<sub>s</sub>)
- 32       • Search window size for the Remainder Set  
       (SF\_SRCH\_WIN\_R<sub>s</sub> = SRCH\_WIN\_R<sub>s</sub>)
- 34       • Pilot detection threshold  
       (SF\_T\_ADD<sub>s</sub> = T\_ADD<sub>s</sub>)
- 36       • Pilot drop threshold  
       (SF\_T\_DROP<sub>s</sub> = T\_DROP<sub>s</sub>)

- 1     • Active Set versus Candidate Set comparison threshold  
(SF\_T\_COMP<sub>S</sub> = T\_COMP<sub>S</sub>)
- 2
- 3     • Drop timer value  
(SF\_T\_TDROPS<sub>S</sub> = T\_TDROPS<sub>S</sub>)
- 4
- 5     • Soft slope for the dynamic add and drop thresholds  
(SF\_SOFT\_SLOPE<sub>S</sub> = SOFT\_SLOPE<sub>S</sub>)
- 6
- 7     • Intercept for the dynamic add threshold  
(SF\_ADD\_INTERCEPT<sub>S</sub> = ADD\_INTERCEPT<sub>S</sub>)
- 8
- 9     • Intercept for the dynamic drop threshold  
(SF\_DROP\_INTERCEPT<sub>S</sub> = DROP\_INTERCEPT<sub>S</sub>)
- 10
- 11    • Private long code mask indicator: If the mobile station is using the private long  
12    code mask on the Serving Frequency, it shall set SF\_PRIVATE\_LCM<sub>S</sub> to '1';  
13    otherwise, it shall set SF\_PRIVATE\_LCM<sub>S</sub> to '0'.

- 14    • Service negotiation type  
(SF\_SERV\_NEG<sub>S</sub> = SERV\_NEG<sub>S</sub>)
- 15

- 16    • Service configuration:  
17      Store the current service configuration (service configuration record and non-  
18      negotiable service configuration record) in SF\_SERVICE\_CONFIG<sub>S</sub>

- 19    • **Call Information:**

[Store the list of current calls \(Call Control instances, etc.\) in SF\\_CALLS<sub>S</sub>](#)

- 21    • Message encryption mode: If message encryption is on, the mobile station shall  
22      set SF\_ENCRYPT\_MODE<sub>S</sub> to '1'; otherwise, the mobile station shall set  
23      SF\_ENCRYPT\_MODE<sub>S</sub> to '0'.
- 24    • Extended nominal power setting of the current cell  
(SF\_NOM\_PWR\_EXT<sub>S</sub> = NOM\_PWR\_EXT<sub>S</sub>)
- 25
- 26    • Nominal power setting of the current cell  
(SF\_NOM\_PWR<sub>S</sub> = NOM\_PWR<sub>S</sub>)
- 27
- 28    • Power control step  
(SF\_PWR\_CNTL\_STEP<sub>S</sub> = PWR\_CNTL\_STEP<sub>S</sub>)
- 29
- 30    • Serving Frequency Active Set (SF Active Set = □For each pilot in the current  
31      Active Set: (PILOT\_PN, PWR\_COMB\_IND) □ )
- 32
- 33    • Serving Frequency Code Channel List  
(SF\_CODE\_CHAN\_LIST<sub>S</sub> = CODE\_CHAN\_LIST<sub>S</sub>)

34    When the message takes effect, the mobile station shall perform the following  
35    actions:

- 36    • The mobile station shall send a *Handoff Completion Message* or an *Extended  
37      Handoff Completion Message* as specified in 2.6.6.2.5.2.

- 1     • Update the Active Set, Candidate Set, and Neighbor Set in accordance with the  
2       *General Handoff Direction Message* processing (see 2.6.6.2.6.1, 2.6.6.2.6.2, and  
3       2.6.6.2.6.3).
- 4     • The mobile station shall delete all pilots that are not listed in the Active Set of  
5       the Fundamental Channel from the Active Set of the Supplemental Channel for  
6       the Forward Supplemental Channel Assignment (if any). If these deleted pilots  
7       include all pilots in the Active Set of the Supplemental Channel, the mobile  
8       station shall cancel the Forward Supplemental Channel Assignment.
- 9     • Discontinue use of all Forward Traffic Channels associated with pilots not listed  
10      in the *General Handoff Direction Message*.
- 11    • If EXTRA\_PARMS is equal to '1', perform the following actions:
  - 12      – If FRAME\_OFFSET<sub>r</sub> is not equal to FRAME\_OFFSET<sub>s</sub>, change the frame  
13       offset on all of the code channels of the Forward Traffic Channel and of the  
14       Reverse Traffic Channel.
  - 15      – If RESET\_L2<sub>r</sub> is equal to '1', and RETURN\_IF\_HANDOFF\_FAIL<sub>s</sub> is equal to '0',  
16       Layer 3 shall send a L2-Supervision.Request primitive to Layer 2 to reset the  
17       acknowledgment procedures, as specified in 2.2.1.1 and 2.2.2.1 of [4]. The  
18       mobile station shall reset the acknowledgment procedures immediately after  
19       the action time of the *General Handoff Direction Message*.
  - 20      – If RESET\_FPC<sub>r</sub> is equal to '1' and RETURN\_IF\_HANDOFF\_FAIL<sub>s</sub> is equal to  
21       '0', initialize the Forward Traffic Channel power control counters, as specified  
22       in 2.6.4.1.1.1.
  - 23      – If SERV\_NEG\_TYPE<sub>r</sub> is equal to '1', set SERV\_NEG<sub>s</sub> to enabled; otherwise set  
24       SERV\_NEG<sub>s</sub> to disabled.
  - 25      – Use the long code mask specified by the PRIVATE\_LCM<sub>r</sub> (see 2.3.12.3) and  
26       indicate to the user the voice privacy mode status.
  - 27      – Process the ENCRYPT\_MODE field, as specified in 2.3.12.2.
    - 28       – If D\_SIG\_ENCRYPT\_MODE<sub>r</sub> is included and is not set to '000', the mobile  
29           station shall set D\_SIG\_ENCRYPT\_MODE<sub>s</sub> to D\_SIG\_ENCRYPT\_MODE<sub>r</sub> and  
30           set ENC\_KEY<sub>s</sub> to the most recently generated CMEAKEY in the mobile  
31           station.
    - 32       – If D\_SIG\_ENCRYPT\_MODE<sub>r</sub> is included, the mobile station shall perform the  
33           following:
      - 34           + If D\_SIG\_ENCRYPT\_MODE<sub>r</sub> is equal to '000', the mobile station shall set  
35              D\_SIG\_ENCRYPT\_MODE<sub>s</sub> to C\_SIG\_ENCRYPT\_MODE<sub>s</sub>; otherwise, the  
36              mobile station shall set D\_SIG\_ENCRYPT\_MODE<sub>s</sub> to  
37              D\_SIG\_ENCRYPT\_MODE<sub>r</sub> and set KEY<sub>s</sub> to the most recently generated  
38              CMEAKEY in the mobile station.
      - 39           – If D\_SIG\_ENCRYPT\_MODE<sub>r</sub> is included, the mobile station shall set  
40              D\_SIG\_ENCRYPT\_MODE<sub>s</sub> to D\_SIG\_ENCRYPT\_MODE<sub>r</sub>.

- 1           – If ENC KEY SIZE<sub>r</sub> is included, the mobile station shall set ENC KEY SIZE<sub>s</sub>  
 2            to ENC KEY SIZE<sub>r</sub>.
- 3     • If EXTRA\_PARMS is equal to ‘0’, set the following variables to the values  
 4        indicated:
- 5        – Hard handoff traffic channel preamble count required before transmitting a  
 6          *Handoff Completion Message* or an *Extended Handoff Completion Message*  
 7          ( $\text{NUM\_PREAMBLE}_s = '000'$ )
- 8        – Complete search flag ( $\text{COMPLETE\_SEARCH}_s = '1'$ )
- 9        – CDMA band class for the Target Frequency  
 10        ( $\text{TF\_CDMABAND}_s = \text{SF\_CDMABAND}_s$ )
- 11        – Frequency assignment for the Target Frequency  
 12        ( $\text{TF\_CDMACH}_s = \text{SF\_CDMACH}_s$ )
- 13     • Store the following parameters from the *General Handoff Direction Message*:
- 14        – *General Handoff Direction Message* sequence number  
 15        ( $\text{HDM\_SEQ}_s = \text{HDM\_SEQ}_r$ )
- 16        – Forward power control subchannel relative gain ( $\text{FPC\_SUBCHAN\_GAIN}_s =$   
 17           $\text{FPC\_SUBCHAN\_GAIN}_r$ ).
- 18        – If the mobile station uses  $\text{FPC\_SUBCHAN\_GAIN}_s$ , the mobile station shall  
 19          perform the following:
- 20           + If  $\text{PC\_ACTION\_TIME}_r$  is received, the mobile station shall apply its usage  
 21            of the  $\text{FPC\_SUBCHAN\_GAIN}_s$  at the time specified by  $\text{PC\_ACTION\_TIME}_r$ .
- 22           + If  $\text{PC\_ACTION\_TIME}$  is not received and the explicit action time is  
 23            received, the mobile station shall apply its usage of the  
 24             $\text{FPC\_SUBCHAN\_GAIN}_s$  at the action time.
- 25           + If neither  $\text{PC\_ACTION\_TIME}_r$  nor explicit action time is received, the  
 26            mobile station shall apply its usage of the  $\text{FPC\_SUBCHAN\_GAIN}_s$  at the  
 27            first 80ms boundary occurring at least 80ms after the end of the frame  
 28            containing the last bit of the *General Handoff Direction Message* sent to  
 29            the mobile station.
- 30        – Reverse Eighth Gating Mode ( $\text{REV\_FCH\_GATING\_MODE}_s =$   
 31           $\text{REV\_FCH\_GATING\_MODE}_r$ ).
- 32        – Reverse Power Control Delay if  $\text{REV\_PWR\_CNTL\_DELAY\_INCL}_r$  is equal to ‘1’  
 33          ( $\text{REV\_PWR\_CNTL\_DELAY}_s = \text{REV\_PWR\_CNTL\_DELAY}_r$ ).
- 34        – If  $\text{SEARCH\_INCLUDED}$  is equal to ‘1’, store the following:
- 35           + Search window size for the Active Set and Candidate Set  
 36            ( $\text{SRCH\_WIN\_A}_s = \text{SRCH\_WIN\_A}_r$ )
- 37           + Pilot detection threshold  
 38            ( $\text{T\_ADD}_s = \text{T\_ADD}_r$ )

- 1       + Pilot drop threshold  
( $T_{DROP_S} = T_{DROP_R}$ )
- 2
- 3       + Active Set versus Candidate Set comparison threshold  
( $T_{COMP_S} = T_{COMP_R}$ )
- 4
- 5       + Drop timer value  
( $T_{TDROP_S} = T_{TDROP_R}$ )
- 6
- 7       + Soft slope for the dynamic add and drop thresholds  
( $SOFT\_SLOPE_S = SOFT\_SLOPE_R$ )
- 8
- 9       + Intercept for the dynamic add threshold  
( $ADD\_INTERCEPT_S = ADD\_INTERCEPT_R$ )
- 10
- 11      + Intercept for the dynamic drop threshold  
( $DROP\_INTERCEPT_S = DROP\_INTERCEPT_R$ )
- 12
- 13     - If EXTRA\_PARMS is equal to '1', store the following:
- 14       + Protocol revision level ( $P_{REV_S} = P_{REV_R}$ ), and protocol revision level  
currently in use ( $P_{REV\_IN\_USE_S} = \min(P_{REV_S}, MOB\_P\_REV_p$  of the  
current band class) )
- 15
- 16       + If the mobile station supports packet data service options, the packet  
data services zone identifier ( $PACKET\_ZONE\_ID_S = PACKET\_ZONE\_ID_R$ )
- 17
- 18       + Frame offset ( $FRAME\_OFFSET_S = FRAME\_OFFSET_R$ )
- 19
- 20       + Acknowledgment procedures reset indicator  
(If  $RETURN\_IF\_HANDOFF\_FAIL_S$  is equal to '1', set  $TF\_RESET\_L2_S$  to  
 $RESET\_L2_R$ )
- 21
- 22
- 23       + Indicator to initialize the Forward Traffic Channel power control counters  
(If  $RETURN\_IF\_HANDOFF\_FAIL_S$  is equal to '1', set  $TF\_RESET\_FPC_S$  to  
 $RESET\_FPC_R$ )
- 24
- 25
- 26       + Nominal power setting of the target cell ( $NOM\_PWR_S = NOM\_PWR_R$ )
- 27
- 28       + Extended nominal power setting of the target cell (If  $CDMABAND_S =$   
'00000' or  $CDMABAND_S = '00011'$ , then  $NOM\_PWR\_EXT_S = '0'$ ; otherwise,  
 $NOM\_PWR\_EXT_S = NOM\_PWR\_EXT_R$ )
- 29
- 30       + Hard handoff traffic channel preamble count required before transmitting  
a *Handoff Completion Message* or an *Extended Handoff Completion  
Message* ( $NUM\_PREAMBLE_S = NUM\_PREAMBLE_R$  )
- 31
- 32
- 33       + CDMA band class for the Target Frequency  
( $TF\_CDMABAND_S = BAND\_CLASS_R$  and  $CDMABAND_S = BAND\_CLASS_R$ )
- 34
- 35       + Frequency assignment for the Target Frequency  
( $TF\_CDMACH_S = CDMA\_FREQ_R$  and  $CDMACH_S = CDMA\_FREQ_R$ )
- 36
- 37       + Complete search flag ( $COMPLETE\_SEARCH_S = COMPLETE\_SEARCH_R$ )
- 38       + Periodic search flag ( $PERIODIC\_SEARCH_S = PERIODIC\_SEARCH_R$ )

- + Nominal code channel output power offset relative to the Reverse Pilot Channel power ( $\text{RLGAIN\_TRAFFIC\_PILOT}_S = \text{RLGAIN\_TRAFFIC\_PILOT}_R$ )
- If EXTRA\_PARMS is equal to '1' and DEFAULT\_RLAG is equal to '1', the mobile station shall set each entry of the Reverse Link Attribute Adjustment Gain Table and Reverse Channel Adjustment Gain Table (see 2.1.2.3.3 of [2]) to 0.
- If REV\_PARMS\_INCLUDED is included and is equal to '1', the mobile station shall store the following:
  - + [Reverse Supplemental Code Channel Request Message neighbor Neighbor pilot strength measurement threshold offset channel pilot strength offset](#) ( $T_{\text{MULCHAN}}_S = T_{\text{MULCHAN}}_R$ )
  - + Reverse Supplemental Code Channel beginning of transmission preamble length ( $\text{BEGIN\_PREAMBLE}_S = \text{BEGIN\_PREAMBLE}_R$ )
  - + Reverse Supplemental Code Channel resumption of transmission preamble length ( $\text{RESUME\_PREAMBLE}_S = \text{RESUME\_PREAMBLE}_R$ )
- For each pilot included in the message, the mobile station shall store the following:
  - + PILOT\_PN, the pilot PN sequence offset index
  - + PWR\_COMB\_IND, the power control symbol combining indicator
  - If USE\_PWR\_CNTL\_STEP is equal to '1' and PWR\_CNTL\_STEP<sub>R</sub> corresponds to a power control step size supported by the mobile station (see 2.1.2.3.2 of [2]), then the mobile station shall set PWR\_CNTL\_STEPS to PWR\_CNTL\_STEP<sub>R</sub>.
- Set the pilot detection threshold for the Target Frequency and the Candidate Frequency:
  - Set TF\_T\_ADD<sub>S</sub> to T\_ADD<sub>S</sub>.
  - If the Target Frequency is the same as the Candidate Frequency ( $\text{TF\_CDMABAND}_S$  is equal to  $\text{CF\_CDMABAND}_S$  and  $\text{TF\_CDMACH}_S$  is equal to  $\text{CF\_CDMACH}_S$ ), set CF\_T\_ADD<sub>S</sub> to T\_ADD<sub>S</sub>.
- If FOR\_INCLUDED is included and is equal to '0', the mobile station shall perform the following:
  - The mobile station shall update the Code Channel List, CODE\_CHAN\_LIST<sub>S</sub>, as specified in 2.6.8.
  - If USE\_FOR\_HDM\_SEQ<sub>S</sub> is equal to '1' and FOR\_LINKED\_HDM\_SEQ<sub>S</sub> is equal to HDM\_SEQ<sub>R</sub> (this indicates that there is pending Forward Supplemental Code Channel assignment information, received in a *Supplemental Channel Assignment Message*, linked to this *General Handoff Direction Message*), then the mobile station shall perform the following actions:

- + The mobile station shall set USE\_FOR\_HDM\_SEQ<sub>s</sub> to '0'.
- + If SCAM\_FOR\_ORDER<sub>s</sub> is equal to '0', the mobile station shall stop processing all Forward Supplemental Code Channels at the action time of the *General Handoff Direction Message*.
- + If SCAM\_FOR\_ORDER<sub>s</sub> is equal to '1', the mobile station shall start processing the Forward Supplemental Code Channels specified in CODE\_CHAN\_LIST<sub>s</sub> at the action time of the *General Handoff Direction Message*, for a period of time determined by the following rules:
  - o If SCAM\_FOR\_DURATION\_MODE<sub>s</sub> is equal to '1', the mobile station shall continue processing the Forward Supplemental Code Channels for a period of (FOR\_DURATION<sub>s</sub> × 80) ms, until it receives a subsequent *General Handoff Direction Message* or a *Supplemental Channel Assignment Message* that specifies a different Forward Supplemental Code Channel assignment.
  - o If SCAM\_FOR\_DURATION\_MODE<sub>s</sub> is equal to '0', the mobile station shall continue processing the Forward Supplemental Code Channels until it receives a subsequent *Supplemental Channel Assignment Message* or a *General Handoff Direction Message* that specifies a different Forward Supplemental Code Channel assignment.
- If USE\_FOR\_HDM\_SEQ<sub>s</sub> is equal to '0' or FOR\_LINKED\_HDM\_SEQ<sub>s</sub> is not equal to HDM\_SEQ<sub>r</sub>, and if the mobile station is currently processing Forward Supplemental Code Channels, it shall continue processing the Forward Supplemental Code Channels using the updated Code Channel List, CODE\_CHAN\_LIST<sub>s</sub>.
- If NNSCR\_INCLUDED field is included and set to '1' and SCR\_INCLUDED field is either not included or included but set to '0', the mobile station shall process the received Non-negotiable Service Configuration Record as specified in 2.6.4.1.13 at the action time of this message and the mobile station shall store (if included) the synchronization identifier received from the base station corresponding to this service configuration (SYNC\_ID<sub>s</sub> = SYNC\_ID<sub>r</sub>).
- If FOR\_INCLUDED is included and is equal to '1', then the mobile station shall process the Forward Supplemental Code Channel assignment information as follows:
  - The mobile station shall set USE\_FOR\_HDM\_SEQ<sub>s</sub> to '0'.
  - If FOR\_START\_TIME<sub>s</sub> specifies a time which is after the action time of the *General Handoff Direction Message*, the mobile station shall cancel any pending Forward Supplemental Code Channel assignment and shall set FOR\_START\_TIME<sub>s</sub> to NULL.
  - The mobile station shall update the Code Channel List, CODE\_CHAN\_LIST<sub>s</sub>, in accordance with the value of FOR\_SUP\_CONFIG, as specified in 2.6.8.

- If FOR\_SUP\_CONFIG is equal to ‘00’ or ‘10’, the mobile station should stop processing Forward Supplemental Code Channels, if any, when the message takes effect.
- If FOR\_SUP\_CONFIG is equal to ‘01’ or ‘11’, the mobile station shall set PILOT\_GATING\_USE\_RATE to ‘0’ at the action time of the message and start processing the Forward Supplemental Code Channels in the updated Code Channel List, CODE\_CHAN\_LIST<sub>s</sub>, at the action time of the message, for a period of time determined by the following rules:
  - + If USE\_FOR\_DURATION is equal to ‘1’, the mobile station shall set FOR\_DURATION<sub>s</sub> to FOR\_DURATION<sub>r</sub>. The mobile station shall continue processing the Forward Supplemental Code Channels for a period of (FOR\_DURATION<sub>s</sub> × 80) ms, until it receives a subsequent *Supplemental Channel Assignment Message* or a *General Handoff Direction Message* that specifies a different Forward Supplemental Code Channel assignment.
  - + If USE\_FOR\_DURATION is equal to ‘0’, the mobile station shall continue processing the Forward Supplemental Code Channels until it receives a subsequent *Supplemental Channel Assignment Message* or a *General Handoff Direction Message* that specifies a different Forward Supplemental Code Channel assignment.
- If REV\_INCLUDED is included and is equal to ‘0’, the mobile station shall perform the following:
  - If USE\_REV\_HDM\_SEQ<sub>s</sub> is equal to ‘1’ and REV\_LINKED\_HDM\_SEQ<sub>s</sub> is equal to HDM\_SEQ<sub>r</sub> (this indicates that there is pending Reverse Supplemental Code Channel assignment information, received in a *Supplemental Channel Assignment Message*, linked to this *General Handoff Direction Message*), the mobile station shall perform the following actions:
    - + If NUM\_REV\_CODES<sub>s</sub> is equal to ‘000’, the mobile station shall stop transmitting on all Reverse Supplemental Code Channels at the action time of the message.
    - + If NUM\_REV\_CODES<sub>s</sub> is not equal to ‘000’, the mobile station may start transmitting on NUM\_REV\_CODES<sub>s</sub> Reverse Supplemental Code Channels at the action time of the message, for a duration of time determined by the following rules:
      - o If SCAM\_REV\_DURATION\_MODE<sub>s</sub> is equal to ‘1’, the mobile station may continue transmitting on the Reverse Supplemental Code Channels for a period of (REV\_DURATION<sub>s</sub> × 80) ms, until it receives a subsequent *General Handoff Direction Message* or a *Supplemental Channel Assignment Message* that specifies a different Reverse Supplemental Code Channel assignment.

- 1        o If SCAM\_REV\_DURATION\_MODE<sub>s</sub> is equal to '0', the mobile station  
  2              may continue transmitting on the Reverse Supplemental Code  
  3              Channels until it receives a subsequent *General Handoff Direction*  
  4              *Message* or a *Supplemental Channel Assignment Message* that  
  5              specifies a different Reverse Supplemental Code Channel assignment.  
  6              + The mobile station shall set USE\_REV\_HDM\_SEQ<sub>s</sub> to '0'.  
  7        - If USE\_REV\_HDM\_SEQ<sub>s</sub> is equal to '0' or REV\_LINKED\_HDM\_SEQ<sub>s</sub> is not  
  8              equal to HDM\_SEQ<sub>r</sub>, and if the previous Reverse Supplemental Code  
  9              Channel assignment is still valid, the mobile station may continue to  
 10             transmit on the Reverse Supplemental Code Channels according to the  
 11             previously specified Reverse Supplemental Code Channel assignment.  
 12        • If REV\_INCLUDED is included and is equal to '1', then the mobile station shall  
 13             process the Reverse Supplemental Code Channel assignment information as  
 14             follows:  
 15              - The mobile station shall set REV\_DTX\_DURATION<sub>s</sub> to  
 16                REV\_DTX\_DURATION<sub>r</sub>.  
 17              - The mobile station shall set USE\_REV\_HDM\_SEQ<sub>s</sub> to '0'.  
 18              - If REV\_START\_TIME<sub>s</sub> specifies a time which is after the action time of the  
 19                *General Handoff Direction Message*, the mobile station shall cancel any  
 20                pending Reverse Supplemental Code Channel assignment and shall set  
 21                REV\_START\_TIME<sub>s</sub> to NULL.  
 22              - If CLEAR\_RETRY\_DELAY is equal to '1', the mobile station shall cancel any  
 23                previously indicated retry delay and shall set RETRY\_DELAY<sub>s</sub> to 0;  
 24                otherwise, the mobile station shall continue to honor any previously active  
 25                retry delay stored in RETRY\_DELAY<sub>s</sub>.  
 26              - The mobile station shall set NUM\_REV\_CODES<sub>s</sub> to NUM\_REV\_CODES<sub>r</sub>, and  
 27                shall perform the following actions:  
 28                + If NUM\_REV\_CODES<sub>s</sub> is equal to '000', the mobile station shall stop  
 29                transmitting on all Reverse Supplemental Code Channels at the action  
 30                time of the message.  
 31                + If NUM\_REV\_CODES<sub>s</sub> is not equal to '000', the mobile station shall set  
 32                PILOT\_GATING\_USE\_RATE to '0' at the action time of the message and  
 33                may start transmitting on NUM\_REV\_CODES<sub>s</sub> Reverse Supplemental  
 34                Code Channels at the action time of the message, for a duration of time  
 35                determined by the following rules:

- o If USE\_REV\_DURATION<sub>r</sub> is equal to '1', the mobile station shall set REV\_DURATION<sub>s</sub> to REV\_DURATION<sub>r</sub>. The mobile station may continue transmitting on the Reverse Supplemental Code Channels for a period of (REV\_DURATION<sub>s</sub> × 80) ms, until it receives a subsequent *General Handoff Direction Message* or a *Supplemental Channel Assignment Message* that specifies a different Reverse Supplemental Code Channel assignment.
- o If USE\_REV\_DURATION is equal to '0', the mobile station may continue to transmit on the Reverse Supplemental Code Channels until it receives a subsequent *General Handoff Direction Message* or a *Supplemental Channel Assignment Message* that specifies a different Reverse Supplemental Code Channel assignment.
  - The mobile station shall store USE\_T\_ADD\_ABORT<sub>r</sub>, the Reverse Supplemental Code Channel assignment T\_ADD abort indicator, as USE\_T\_ADD\_ABORT<sub>s</sub>.
- The mobile station shall set IGNORE\_SCAM<sub>s</sub> and IGNORE\_ESCAM<sub>s</sub> to '0'.
- If PERIODIC\_SEARCH<sub>s</sub> is equal to '0' and a periodic search is in progress, the mobile station shall abort the periodic search (see 2.6.6.2.8.3.4 and 2.6.6.2.10.4).
- Perform a soft or hard handoff depending on the following conditions:
  - If any of the following conditions is true, the mobile station shall perform a hard handoff:
    - + EXTRA\_PARMS is set to '1' and either BAND\_CLASS<sub>r</sub> is not equal to SF\_CDMABAND<sub>s</sub>, CDMA\_FREQ<sub>r</sub> is not equal to SF\_CDMACH<sub>s</sub>, or FRAME\_OFFSET<sub>r</sub> is not equal to SF\_FRAME\_OFFSET<sub>s</sub>, or
    - + The set of pilots specified by the message is disjoint from the Active Set prior to the action time of the message.
  - If the mobile station performs a hard handoff, it shall do the following:
    - + If a Periodic Serving Frequency Pilot Report Procedure is in progress, the mobile station shall abort the procedure (see 2.6.6.2.12).
    - + If a Candidate Frequency periodic search is in progress, the mobile station shall abort the periodic search (see 2.6.6.2.8.3.4 and 2.6.6.2.10.4).
    - + The mobile station shall cancel the Forward Supplemental Channel assignment or the Reverse Supplemental Channel assignment (if any).
    - + If RETURN\_IF\_HANDOFF\_FAIL<sub>s</sub> is equal to '0', the mobile station shall perform actions specified in 2.6.6.2.8.1. If the message specifies more than one pilot, the mobile station shall also perform actions specified in 2.6.6.2.7.1 and 2.6.6.2.7.2.

- + If RETURN\_IF\_HANDOFF\_FAIL<sub>s</sub> is equal to ‘1’, the mobile station shall perform actions specified in 2.6.6.2.8.2. If the message specifies more than one pilot, the mobile station shall also perform actions specified in 2.6.6.2.7.1 and 2.6.6.2.7.2.
- Otherwise, the mobile station shall perform a soft handoff as specified in 2.6.6.2.7.

10. *Periodic Pilot Measurement Request Order*: The mobile station shall perform the following:

- If the PPSMM timer is enabled, disable it.
- If ORDQ is equal to ‘11111111’, the mobile station shall send a *Periodic Pilot Strength Measurement Message* to the base station within T<sub>56m</sub> seconds.
- If ORDQ is not equal to ‘11111111’, the mobile station shall perform the following:
  - Set the MIN\_PILOT\_PWR\_THRESH<sub>s</sub> to MIN\_PILOT\_PWR\_THRESH<sub>r</sub> received from the *Periodic Pilot Strength Measurement Request Order*.
  - Set the MIN\_PILOT\_EC\_IO\_THRESH<sub>s</sub> to MIN\_PILOT\_EC\_IO\_THRESH<sub>r</sub> received from the *Periodic Pilot Strength Measurement Request Order*.
  - Set PPSMM\_PERIOD<sub>s</sub> equal to the larger value of ORDQ and the total length of time, in units of 80 ms, required by the mobile station to update the pilot strength measurement of each pilot in the Active Set and the Candidate Set.
  - Perform the Periodic Serving Frequency Pilot Report Procedure as specified in 2.6.6.2.12.
- If the mobile station sends the *Periodic Pilot Strength Measurement Message* and if INCL\_SETPT<sub>r</sub> is equal to ‘1’, the mobile station shall include outer loop E<sub>b</sub>/N<sub>t</sub> setpoint information corresponding to the physical channel specified by FPC\_PRI\_CHAN<sub>s</sub>, and Supplemental Channel outer loop E<sub>b</sub>/N<sub>t</sub> setpoint information if one or more Supplemental Channels are assigned, in the *Periodic Pilot Strength Measurement Message*.

11. *Universal Handoff Direction Message*: The mobile station shall process the message as follows:

In addition to the requirements in this section, if the SCR\_INCLUDED field is included in this message and is set to ‘1’ the mobile station shall also process this message in accordance with the requirements for the active service subfunction (see 2.6.4.1.2.2).

The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to the specified value if any of the following conditions is true, and shall not perform any other action described in this section for processing the *Universal Handoff Direction Message*:

- The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field

- 1           set to '00000110' (capability not supported), if the mobile station does not  
 2           support the band class specified in *the Universal Handoff Direction Message*.
- 3       • If the SCR\_INCLUDED field is included in this message and is set to '1', the  
 4           mobile station shall do the following:
    - 5           - The mobile station shall send a *Mobile Station Reject Order* with the ORDQ  
 6           field set to '00000111' (message cannot be handled by the current mobile  
 7           station configuration), if the mobile station does not support the service  
 8           configuration specified in *the Universal Handoff Direction Message*.
    - 9           - The mobile station shall send a *Mobile Station Reject Order* (ORDQ =  
 10           '00000111') within  $T_{56m}$  seconds, if the mobile station supports the service  
 11           configuration specified but does not accept the service configuration specified  
 12           in *the Universal Handoff Direction Message*.
  - 13      • The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field  
 14           set to '00000111' (message cannot be handled by the current mobile station  
 15           configuration), if the NNSCR\_INCLUDED field is included and set to '1' and the  
 16           SCR\_INCLUDED field is either not included or included but set to '0', and the  
 17           mobile station does not support the configuration specified in the non-negotiable  
 18           service configuration information record in *the Universal Handoff Direction  
 19           Message*.
  - 20      • If the CC\_INFO\_INCL field is included in this message and is set to '1', the  
 21           mobile station shall perform the following for each of the NUM\_CALLS\_ASSIGN  
 22           call assignments included in this message:
    - 23           - If there already exists or currently pending instantiation a Call Control  
 24           instance identified by CON\_REF<sub>r</sub>, the mobile station shall send a *Mobile  
 25           Station Reject Order* with ORDQ field set to '00010010' (a call control instance  
 26           is already present with the specified identifier), with the CON\_REF field of the  
 27           order set to CON\_REF<sub>r</sub>.
    - 28           - If RESPONSE\_IND<sub>r</sub> equals '1' and TAG<sub>r</sub> does not match any of the TAG  
 29           values contained in the list TAG\_OUTSTANDING\_LIST, the mobile station  
 30           shall send a *Mobile Station Reject Order* with ORDQ field set to '00010011'  
 31           (TAG received does not match TAG stored), with the TAG field of the order set  
 32           to TAG<sub>r</sub>, and the CON\_REF field of the order set to CON\_REF<sub>r</sub>.
    - 33           - If the mobile station does not accept this call assignment, the mobile station  
 34           shall send a *Mobile Station Reject Order* with ORDQ field set to '00010000'  
 35           (call assignment not accepted), with the CON\_REF field of the order set to  
 36           CON\_REF<sub>r</sub>.
  - 37      • The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field  
 38           set to '00001010' (search set not specified), if the PERIODIC\_SEARCH field is

1 included in the *Universal Handoff Direction Message* and is set to ‘1’ and the  
 2 Candidate Frequency Search Set is empty.

- 3 • The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field  
 4 set to ‘00000011’ (message structure not acceptable), if the message specifies the  
 5 Forward/Reverse Supplemental Channel assignment and the most significant  
 6 bit of CH\_IND<sub>r</sub> is set to ‘0’.
- 7 • The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field  
 8 set to ‘00000111’ (message can not be handled by the current mobile station  
 9 configuration), if the message includes a reverse Supplemental Channel  
 10 assignment, and any of the mobile station’s reverse supplemental channel  
 11 configuration parameter for the corresponding Supplemental Channel  
 12 ~~(REV\_SCH\_MUX<sub>s</sub>, REV\_SCH\_RC<sub>s</sub>, REV\_SCH\_CODING<sub>s</sub>, or~~  
 13 ~~REV\_SCH\_FRAME\_LENGTH<sub>s</sub>)~~ is NULL.
- 14 • The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field  
 15 set to ‘00000111’ (message can not be handled by the current mobile station  
 16 configuration), if the message includes a forward Supplemental Channel  
 17 assignment and any of the mobile station’s forward supplemental channel  
 18 configuration parameters for the corresponding Supplemental Channel ~~is not~~  
 19 ~~included in the message and its stored value (FOR\_SCH\_MUX<sub>s</sub>, FOR\_SCH\_RC<sub>s</sub>,~~  
 20 ~~FOR\_SCH\_CODING<sub>s</sub>, FOR\_SCH\_FRAME\_LENGTH<sub>s</sub>, QOF\_ID<sub>s</sub> for the~~  
 21 ~~corresponding SCCL\_INDEX<sub>s</sub>, or FOR\_SCH\_CC\_INDEX<sub>s</sub> for the corresponding~~  
 22 ~~SCCL\_INDEX<sub>s</sub>)~~ is NULL.
- 23 • The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set  
 24 to ‘00001101’ (search period too short), if the PERIODIC\_SEARCH field is included  
 25 in the *Universal Handoff Direction Message* and is set to ‘1’, and *search\_period* is less  
 26 than (max (*fwd\_time*, *rev\_time*) + T<sub>71m</sub> seconds), where

27     *search\_period* = time period corresponding to SEARCH\_PERIOD<sub>s</sub> shown in  
 28 Table 2.6.6.2.8.3.2-1,

29     *fwd\_time* = the mobile station’s estimate of the total length of time, in seconds,  
 30 for which the mobile station will need to suspend its current Forward Traffic  
 31 Channel processing in order to tune to the CDMA Candidate Frequency, to search  
 32 the Candidate Frequency Search Set, and to re-tune to the Serving Frequency; if the  
 33 mobile station searches the Candidate Frequency Search Set in multiple visits,  
 34 *fwd\_time* is the total time for all visits to the CDMA Candidate Frequency in a search  
 35 period (see 2.6.6.2.8.3.2),

36 and

1            $rev\_time$  = the mobile station's estimate of the total length of time, in seconds, for  
 2           which the mobile station will need to suspend its current Reverse Traffic Channel  
 3           processing in order to tune to the CDMA Candidate Frequency, to search the  
 4           Candidate Frequency Search Set, and to re-tune to the Serving Frequency; if the  
 5           mobile station searches the Candidate Frequency Search Set in multiple visits,  
 6            $rev\_time$  is the total time for all visits to the CDMA Candidate Frequency in a search  
 7           period.

8       If none of the above conditions is true, the mobile station shall perform the actions  
 9       described in the remainder of this section to process the *Universal Handoff Direction*  
 10      Message at the action time of the message.

11      If EXTRA\_PARMS is equal to '1', the mobile station shall store the return on failure  
 12      indicator from the *Universal Handoff Direction Message*  
 13      ( $RETURN\_IF\_HANDOFF\_FAIL_S = RETURN\_IF\_HANDOFF\_FAIL_T$ ); otherwise the  
 14      mobile station shall set  $RETURN\_IF\_HANDOFF\_FAIL_S$  to '0'.

15      The mobile station shall set  $RETURN\_IF\_HANDOFF\_FAIL_S$  to '0' (disable return on  
 16      failure) if any of the following conditions is true:

- 17       • If  $P\_REV\_IN\_USE_S$  is less than or equal to four and the mobile station does not  
 18        support hard handoff with return on failure, or
- 19       • At least one of the pilots specified by the message is also included in the Active  
 20        Set prior to the action time of the message, and one of the following conditions is  
 21        true:
  - 22           – EXTRA\_PARMS is equal to '0', or
  - 23           – EXTRA\_PARMS is equal to '1', the message specifies the same Frequency  
 24           Assignment as the Serving Frequency ( $BAND\_CLASS_T$  is equal to  
 25            $CDMABAND_S$  and  $CDMA\_FREQ_T$  is equal to  $CDMACH_S$ ), and  
 26            $FRAME\_OFFSET_T$  is equal to  $FRAME\_OFFSET_S$ .

27      The mobile station shall store the following parameters from its current  
 28      configuration:

- 29       • CDMA band class ( $SF\_CDMABAND_S = CDMABAND_S$ )
- 30       • Frequency assignment ( $SF\_CDMACH_S = CDMACH_S$ )
- 31       • Frame Offset ( $SF\_FRAME\_OFFSET_S = FRAME\_OFFSET_S$ )

32      If  $RETURN\_IF\_HANDOFF\_FAIL_S$  is equal to '1', the mobile station shall also store the  
 33      following parameters from its current configuration:

- 34       • Protocol revision level ( $SF\_P\_REV_S = P\_REV_S$ )
- 35       • Protocol revision level in use on the Serving Frequency ( $SF\_P\_REV\_IN\_USE_S =$   
 36            $P\_REV\_IN\_USE_S$ )
- 37       • Search window size for the Active Set and Candidate Set ( $SF\_SRCH\_WIN\_A_S =$   
 38            $SRCH\_WIN\_A_S$ )

- 1     • Search window size for the Neighbor Set  
(SF\_SRCH\_WIN\_N<sub>S</sub> = SRCH\_WIN\_N<sub>S</sub>),
- 2
- 3     • Search window size for the Remainder Set  
(SF\_SRCH\_WIN\_R<sub>S</sub> = SRCH\_WIN\_R<sub>S</sub>)
- 4
- 5     • Pilot detection threshold (SF\_T\_ADD<sub>S</sub> = T\_ADD<sub>S</sub>)
- 6
- 7     • Pilot drop threshold (SF\_T\_DROP<sub>S</sub> = T\_DROP<sub>S</sub>)
- 8
- 9     • Active Set versus Candidate Set comparison threshold  
(SF\_T\_COMP<sub>S</sub> = T\_COMP<sub>S</sub>)
- 10
- 11     • Drop timer value (SF\_T\_TDROPS = T\_TDROPS)
- 12
- 13     • Soft slope for the dynamic add and drop thresholds  
(SF\_SOFT\_SLOPE<sub>S</sub> = SOFT\_SLOPE<sub>S</sub>)
- 14
- 15     • Intercept for the dynamic add threshold  
(SF\_ADD\_INTERCEPT<sub>S</sub> = ADD\_INTERCEPT<sub>S</sub>)
- 16
- 17     • Intercept for the dynamic drop threshold  
(SF\_DROP\_INTERCEPT<sub>S</sub> = DROP\_INTERCEPT<sub>S</sub>)
- 18
- 19     • Private long code mask indicator: If the mobile station is using the private long code mask on the Serving Frequency, it shall set SF\_PRIVATE\_LCM<sub>S</sub> to '1'; otherwise, it shall set SF\_PRIVATE\_LCM<sub>S</sub> to '0'.
- 20
- 21     • Service negotiation type (SF\_SERV\_NEG<sub>S</sub> = SERV\_NEG<sub>S</sub>)
- 22
- 23     • Service configuration: Store the current service configuration (service configuration record and non-negotiable service configuration record) in SF\_SERVICE\_CONFIG<sub>S</sub>
- 24
- 25         **Call Information:**  
Store the list of current calls (Call Control instances, etc.) in SF\_CALLS<sub>S</sub>
- 26
- 27
- 28         • Message encryption mode: If message encryption is on, the mobile station shall set SF\_ENCRYPT\_MODE<sub>S</sub> to '1'; otherwise, the mobile station shall set SF\_ENCRYPT\_MODE<sub>S</sub> to '0'.
- 29
- 30
- 31
- 32
- 33         • If NNSCR\_INCLUDED field is included and set to '1' and SCR\_INCLUDED field is either not included or included but set to '0', the mobile station shall process the received Non-negotiable Service Configuration Record as specified in 2.6.4.1.13 at the action time of this message and the mobile station shall store (if included) the synchronization identifier received from the base station corresponding to this service configuration (SYNC\_ID<sub>S</sub> = SYNC\_ID<sub>R</sub>).
- 34
- 35
- 36
- 37             – Extended nominal power setting of the current cell  
(SF\_NOM\_PWR\_EXT<sub>S</sub> = NOM\_PWR\_EXT<sub>S</sub>)
- 38
- 39             – Nominal power setting of the current cell (SF\_NOM\_PWR<sub>S</sub> = NOM\_PWR<sub>S</sub>)
- 40
- 41             – Power control step (SF\_PWR\_CNTL\_STEP<sub>S</sub> = PWR\_CNTL\_STEP<sub>S</sub>)

- Serving Frequency Active Set (SF Active Set = (For each pilot in the current Active Set: (PILOT\_PN, PWR\_COMB\_IND) ))
- Serving Frequency Code Channel List (SF\_CODE\_CHAN\_LIST<sub>s</sub> = CODE\_CHAN\_LIST<sub>s</sub>)

When the message takes effect, the mobile station shall perform the following actions:

- The mobile station shall send a *Handoff Completion Message* or an *Extended Handoff Completion Message* as specified in 2.6.6.2.5.2.
- Update the Active Set, Candidate Set, and Neighbor Set in accordance with the *Universal Handoff Direction Message* processing (see 2.6.6.2.6.1, 2.6.6.2.6.2, and 2.6.6.2.6.3).
- Discontinue use of all Forward Traffic Channels associated with pilots not in the updated Active Set.
- If PARMS\_INCL is equal to ‘1’, perform the following actions:
  - Set protocol revision level ( $P_{REV_s} = P_{REV_r}$ ), and protocol revision level currently in use ( $P_{REV\_IN\_USE_s} = \min(P_{REV_s}, MOB\_P_{REV_p}$  of the current band class)).
  - If SERV\_NEG\_TYPE<sub>r</sub> is equal to ‘1’, set SERV\_NEG<sub>s</sub> to enabled; otherwise set SERV\_NEG<sub>s</sub> to disabled. • If EXTRA\_PARMS is equal to ‘1’, perform the following actions:
  - If EXTRA\_PARMS is equal to ‘1’, perform the following actions:
    - If FRAME\_OFFSET<sub>r</sub> is not equal to FRAME\_OFFSET<sub>s</sub>, change the frame offset on all of the code channels of the Forward Traffic Channel and of the Reverse Traffic Channel.
    - If RESET\_L2<sub>r</sub> is equal to ‘1’, and RETURN\_IF\_HANDOFF\_FAILS is equal to ‘0’, Layer 3 shall send a L2-Supervision.Request primitive to Layer 2 to reset the acknowledgment procedures, as specified in 2.2.1.1 and 2.2.2.1 of [4]. The mobile station shall reset the acknowledgment procedures immediately after the action time of the *Universal Handoff Direction Message*.
    - If RESET\_FPC<sub>r</sub> is equal to ‘1’ and RETURN\_IF\_HANDOFF\_FAILS is equal to ‘0’, initialize the Forward Traffic Channel power control counters, as specified in 2.6.4.1.1.1.
    - Use the long code mask specified by the PRIVATE\_LCM<sub>r</sub> (see 2.3.12.3) and indicate to the user the voice privacy mode status.
    - Process the ENCRYPT\_MODE field, as specified in 2.3.12.2.
    - If D\_SIG\_ENCRYPT\_MODE<sub>r</sub> is included, the mobile station shall set D\_SIG\_ENCRYPT\_MODE<sub>s</sub> to D\_SIG\_ENCRYPT\_MODE<sub>r</sub>.
    - If D\_SIG\_ENCRYPT\_MODE<sub>r</sub> is included, the mobile station shall perform the following:

- 1           + If  $D_{SIG\_ENCRYPT\_MODE_f}$  is equal to '000', the mobile station shall  
 2           set  $D_{SIG\_ENCRYPT\_MODE_s}$  to  $C_{SIG\_ENCRYPT\_MODE_s}$ ; otherwise,  
 3           the mobile station shall set  $D_{SIG\_ENCRYPT\_MODE_s}$  to  
 4            $D_{SIG\_ENCRYPT\_MODE_f}$  and set  $KEY_s$  to the most recently  
 5           generated CMEAKEY in the mobile station.
- 6        – If  $USE\_NEW\_KEY_f$  is not included, or is include and is set to '1', the mobile  
 7           station shall use the session key generated at the most recent registration for  
 8           encryption of signaling and user information. The mobile station shall store  
 9           the session key in  $KEY_s[KEY\_SEQ\_NEW_{s\_p}]$ . The mobile station shall store  
 10           $KEY\_SIZE_f$  in  $KEY\_SIZE_s$ . The mobile station shall then increment the  
 11          variable  $KEY\_SEQ\_NEW_{s\_p}$  by one (modulo 16). If  $ENC\_KEY\_SIZE_r$  is  
 12          included, the mobile station shall set  $ENC\_KEY\_SIZE_s$  to  $ENC\_KEY\_SIZE_r$ .
- 13        – If  $USE\_NEW\_KEY_f$  is included and is set to '0', the mobile station shall use  
 14           $KEY_s[KEY\_SEQ_f]$  as the session key with the key size specified by  
 15           $KEY\_SIZE_f$ .
- 16       • If EXTRA\_PARMS is equal to '0', set the following variables to the values  
 17           indicated:
- 18           – Hard handoff traffic channel preamble count required before transmitting  
 19           a *Handoff Completion Message* or an *Extended Handoff Completion  
 20           Message* ( $NUM\_PREAMBLE_s = '000'$ )
- 21           – Complete search flag ( $COMPLETE\_SEARCH_s = '1'$ )
- 22           – CDMA band class for the Target Frequency  
 23           ( $TF\_CDMABAND_s = SF\_CDMABAND_s$ )
- 24           – Frequency assignment for the Target Frequency  
 25           ( $TF\_CDMACH_s = SF\_CDMACH_s$ )
- 26       • Store the following parameters from the *Universal Handoff Direction Message*:
- 27           – *Universal Handoff Direction Message* sequence number  
 28           ( $HDM\_SEQ_s = HDM\_SEQ_r$ )
- 29           – Forward power control subchannel relative gain ( $FPC\_SUBCHAN\_GAIN_s =$   
 30            $FPC\_SUBCHAN\_GAIN_r$ ).
- 31           – If the mobile station uses  $FPC\_SUBCHAN\_GAIN_s$ , the mobile station shall  
 32           perform the following:
- 33            + If  $PC\_ACTION\_TIME_r$  is received, the mobile station shall apply its  
 34           usage of the  $FPC\_SUBCHAN\_GAIN_s$  at the time specified by  
 35            $PC\_ACTION\_TIME_r$ .
- 36            + If  $PC\_ACTION\_TIME$  is not received and the explicit action time is  
 37           received, the mobile station shall apply its usage of the  
 38            $FPC\_SUBCHAN\_GAIN_s$  at the action time.

- + If neither PC\_ACTION\_TIME<sub>r</sub> nor explicit action time is received, the mobile station shall apply its usage of the FPC\_SUBCHAN\_GAIN<sub>s</sub> at the first 80ms boundary occurring at least 80ms after the end of the frame containing the last bit of the *Universal Handoff Direction Message* sent to the mobile station.
- Reverse Eighth Gating Mode (REV\_FCH\_GATING\_MODE<sub>s</sub> = REV\_FCH\_GATING\_MODE<sub>r</sub>).
- Reverse Power Control Delay if REV\_PWR\_CNTL\_DELAY\_INCL<sub>r</sub> is equal to '1' (REV\_PWR\_CNTL\_DELAY<sub>s</sub> = REV\_PWR\_CNTL\_DELAY<sub>r</sub>).
- If SEARCH\_INCLUDED is equal to '1', store the following:
  - + Search window size for the Active Set and Candidate Set (SRCH\_WIN\_AS = SRCH\_WIN\_AR)
  - + Pilot detection threshold (T\_ADD<sub>s</sub> = T\_ADD<sub>r</sub>)
  - + Pilot drop threshold (T\_DROP<sub>s</sub> = T\_DROP<sub>r</sub>)
  - + Active Set versus Candidate Set comparison threshold (T\_COMP<sub>s</sub> = T\_COMP<sub>r</sub>)
  - + Drop timer value (T\_TDROP<sub>s</sub> = T\_TDROP<sub>r</sub>)
  - + Soft slope for the dynamic add and drop thresholds (SOFT\_SLOPE<sub>s</sub> = SOFT\_SLOPE<sub>r</sub>)
  - + Intercept for the dynamic add threshold (ADD\_INTERCEPT<sub>s</sub> = ADD\_INTERCEPT<sub>r</sub>)
  - + Intercept for the dynamic drop threshold (DROP\_INTERCEPT<sub>s</sub> = DROP\_INTERCEPT<sub>r</sub>)
- If EXTRA\_PARMS is equal to '1', store the following:
  - + If the mobile station supports packet data service options, the packet data services zone identifier (PACKET\_ZONE\_ID<sub>s</sub> = PACKET\_ZONE\_ID<sub>r</sub>)
  - + Frame offset (FRAME\_OFFSET<sub>s</sub> = FRAME\_OFFSET<sub>r</sub>)
  - + Acknowledgment procedures reset indicator (If RETURN\_IF\_HANDOFF\_FAIL<sub>s</sub> is equal to '1', set TF\_RESET\_L2<sub>s</sub> to RESET\_L2<sub>r</sub>)
  - + Indicator to initialize the Forward Traffic Channel power control counters (If RETURN\_IF\_HANDOFF\_FAIL<sub>s</sub> is equal to '1', set TF\_RESET\_FPC<sub>s</sub> to RESET\_FPC<sub>r</sub>)
  - + Nominal power setting of the target cell (NOM\_PWR<sub>s</sub> = NOM\_PWR<sub>r</sub>)
  - + Extended nominal power setting of the target cell (If CDMABAND<sub>s</sub> = '00000' or CDMABAND<sub>s</sub> = '00011', then NOM\_PWR\_EXT<sub>s</sub> = '0'; otherwise, NOM\_PWR\_EXT<sub>s</sub> = NOM\_PWR\_EXT<sub>r</sub>)

- + Hard handoff traffic channel preamble count required before transmitting a *Handoff Completion Message* or an *Extended Handoff Completion Message* ( $\text{NUM\_PREAMBLE}_S = \text{NUM\_PREAMBLE}_r$ )
- + CDMA band class for the Target Frequency ( $\text{TF\_CDMABAND}_S = \text{BAND\_CLASS}_r$  and  $\text{CDMABAND}_S = \text{BAND\_CLASS}_r$ )
- + Frequency assignment for the Target Frequency ( $\text{TF\_CDMACH}_S = \text{CDMA\_FREQ}_r$  and  $\text{CDMACH}_S = \text{CDMA\_FREQ}_r$ )
- + Complete search flag ( $\text{COMPLETE\_SEARCH}_S = \text{COMPLETE\_SEARCH}_r$ )
- + Periodic search flag ( $\text{PERIODIC\_SEARCH}_S = \text{PERIODIC\_SEARCH}_r$ )
- + Nominal code channel output power offset relative to the Reverse Pilot Channel power ( $\text{RLGAIN\_TRAFFIC\_PILOT}_S = \text{RLGAIN\_TRAFFIC\_PILOT}_r$ )
- If  $\text{EXTRA\_PARMS}$  is equal to ‘1’ and  $\text{DEFAULT\_RLAG}$  is equal to ‘1’, the mobile station shall set each entry of the Reverse Link Attribute Adjustment Gain Table and Reverse Channel Adjustment Gain Table (see 2.1.2.3.3 of [2]) to 0.
- If  $\text{USE\_PWR\_CNTL\_STEP}$  is equal to ‘1’ and  $\text{PWR\_CNTL\_STEP}_r$  corresponds to a power control step size supported by the mobile station (see of [2]), then the mobile station shall set  $\text{PWR\_CNTL\_STEP}_S$  to  $\text{PWR\_CNTL\_STEP}_r$ .
- If  $\text{CLEAR_RETRY_DELAY}_r$  is equal to ‘1’, the mobile station shall cancel any previously indicated retry delay and shall set  $\text{RETRY\_DELAY}_S[\text{RETRY\_TYPE}]$  to 0, where  $\text{RETRY\_TYPE}$  is equal to ‘001’, ‘010’ or ‘011’; otherwise, the mobile station shall continue to honor any previously active retry delay stored in  $\text{RETRY\_DELAY}_S$ .
- If  $\text{3XFL\_1XRL\_INCL}_r$  is equal to ‘1’, the mobile station shall set  $\text{1XRL\_FREQ\_OFFSET}_S$  to  $\text{1XRL\_FREQ\_OFFSET}_r$ .
- If  $\text{SCH\_INCL}_r$  is equal to ‘1’ and  $\text{NUM\_FOR\_ASSIGN}_r$  is not equal to ‘00’, the mobile station shall store the following information for each occurrence of the record and process the Forward Supplemental Burst as specified in 2.6.6.2.5.1.1:
  - +  $\text{FOR\_SCH\_START\_TIME\_INCL}_S[\text{FOR\_SCH\_ID}_r] = \text{FOR\_SCH\_START\_TIME\_INCL}_r$
  - + If  $\text{FOR\_SCH\_START\_TIME\_INCL}_S[\text{FOR\_SCH\_ID}_r]$  is equal to ‘1’, set  $\text{FOR\_SCH\_START\_TIME}_S[\text{FOR\_SCH\_ID}_r] = \text{FOR\_SCH\_START\_TIME}_r$
  - +  $\text{FOR\_SCH\_DURATION}_S[\text{FOR\_SCH\_ID}_r] = \text{FOR\_SCH\_DURATION}_r$
  - +  $\text{SCCL\_INDEX}_S[\text{FOR\_SCH\_ID}_r] = \text{SCCL\_INDEX}_r$

- If SCH\_INCL<sub>r</sub> is equal to '1' and NUM\_REV\_ASSIGN<sub>r</sub> is not equal to '00', the mobile station shall store the following information for each occurrence of the record and process the Reverse Supplemental Burst as specified in 2.6.6.2.5.1.2:
  - + REV\_SCH\_START\_TIME\_INCL<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>] = REV\_SCH\_START\_TIME\_INCL<sub>r</sub>
  - + If REV\_SCH\_START\_TIME\_INCL<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>] is equal to '1', set REV\_SCH\_START\_TIME<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>] = REV\_SCH\_START\_TIME<sub>r</sub>
  - + REV\_SCH\_DURATION<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>] = REV\_SCH\_DURATION<sub>r</sub>
  - + REV\_SCH\_NUM\_BITS\_IDX<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>] = REV\_SCH\_NUM\_BITS\_IDX<sub>r</sub>
- If CH\_IND<sub>r</sub> is equal to '101', the mobile station shall perform the following:
  - + The mobile station shall set CH\_IND<sub>s</sub> = '01'.
  - + If SCH\_INCL<sub>r</sub> is equal to '1' and NUM\_FOR\_SCH is not equal to '00000', for all the NUM\_FOR\_SCH occurrences, the mobile station shall perform the following:
    - o The mobile station shall determine, N\_FSCH\_BITS\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>], the number of information bits per Forward Supplemental Channel frame identified by FOR\_SCH\_ID and corresponding to the index SCCL\_INDEX according to the following rules:
      - ◊ If FSCH\_VAR\_TABLE\_ID<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>] is equal to '000', then:
        - If USE\_FLEX\_NUM\_BITS<sub>s</sub> is equal to '0' or if USE\_FLEX\_NUM\_BITS<sub>s</sub> is equal to '1' and FSCH\_NBIT\_TABLE\_ID<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>] is equal to '0000', then the mobile station shall set the number of information bits per frame, N\_FSCH\_BITS\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>] and number of CRC bits per frame, FSCH\_CRC\_LEN\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>], according to Table 3.7.3.3.2.37-2 using FOR\_SCH\_NUM\_BITS\_IDX<sub>r</sub> as the index to the table.

- If USE\_FLEX\_NUM\_BITS<sub>s</sub> is equal to '1' and FSCH\_NBIT\_TABLE\_ID<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>] is not equal to '0000', then the mobile station shall set the number of CRC bits per frame, FSCH\_CRC\_LEN\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>], using Table 3.7.5.20-1 and CRC\_LEN\_IDX<sub>s</sub>[FSCH\_NBIT\_TABLE\_ID<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>]][FOR\_SCH\_NUM\_BITS\_IDX<sub>r</sub>] as the index to the table.  
The mobile station shall also set the number of information bits per frame corresponding to SCCL\_INDEX<sub>r</sub>, N\_FSCH\_BITS\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>], to NUM\_BITS<sub>s</sub>[FSCH\_NBIT\_TABLE\_ID<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>]][FOR\_SCH\_NUM\_BITS\_IDX<sub>r</sub>].
- ◊ If FSCH\_VAR\_TABLE\_ID<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>] is not equal to '000', then:
  - The mobile station shall set N\_FSCH\_BITS\_IDX\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>], the set of indices to the number of information bits per frame as follows:
    - + If FOR\_SCH\_NUM\_BITS\_IDX<sub>r</sub> is equal to '0000', then N\_FSCH\_BITS\_IDX\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>] = {FOR\_SCH\_NUM\_BITS\_IDX<sub>r</sub>},
    - + otherwise the mobile station shall set (initialize) N\_FSCH\_BITS\_IDX\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>] = {FOR\_SCH\_NUM\_BITS\_IDX<sub>r</sub>} and for i=1, ..., FOR\_SCH\_NUM\_BITS\_IDX<sub>r</sub> the mobile station shall add FOR\_SCH\_NUM\_BITS\_IDX<sub>r</sub> - VAR\_FSCH\_RATE\_OFFSET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][FOR\_SCH\_NUM\_BITS\_IDX<sub>r</sub>][i] to the set specified by N\_FSCH\_BITS\_IDX\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>]
  - If USE\_FLEX\_NUM\_BITS<sub>s</sub> is equal to '0' or if USE\_FLEX\_NUM\_BITS<sub>s</sub> is equal to '1' and FSCH\_NBIT\_TABLE\_ID<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>] is equal to '0000', then the mobile station shall set N\_FSCH\_BITS\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>], the set of number of information bits per frame as follows. The *i*<sup>th</sup> member of the set N\_FSCH\_BITS\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>] is obtained using Table 3.7.3.3.2.37-2 and the *i*<sup>th</sup> member of the set N\_FSCH\_BITS\_IDX\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>] as the index to the table.

- If USE\_FLEX\_NUM\_BITS<sub>s</sub> is equal to '1' and FSCH\_NBIT\_TABLE\_ID<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>] is not equal to '0000', then
  - + the mobile station shall set N\_FSCH\_BITS\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>], the set of number of information bits per frame as follows.  
The  $t^{\text{th}}$  member of the set N\_FSCH\_BITS\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>] is equal to NUM\_BITS<sub>s</sub>[FSCH\_NBIT\_TABLE\_ID<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>]] [N\_FSCH\_BITS\_IDX\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][i]], where N\_FSCH\_BITS\_IDX\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][i] denotes the  $t^{\text{th}}$  member of the set N\_FSCH\_BITS\_IDX\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>] and,
  - + the mobile station shall set FSCH\_CRC\_LEN\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>], the set of number CRC bits per frame as follows.  
The  $t^{\text{th}}$  member of the set FSCH\_CRC\_LEN\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>] using Table 3.7.5.20-1 and CRC\_LEN\_IDX<sub>s</sub>[FSCH\_NBIT\_TABLE\_ID<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>]] [N\_FSCH\_BITS\_IDX\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][i]] as the index to the table, where N\_FSCH\_BITS\_IDX\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][i] denotes the  $t^{\text{th}}$  member of the set N\_FSCH\_BITS\_IDX\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>].
- + If SCH\_INCL<sub>r</sub> is equal to '1' and NUM\_REV\_SCH is not equal to '00000', for all the NUM\_REV\_SCH occurrences, the mobile station shall perform the following:
  - o Set REV\_SCH\_NUM\_BITS\_IDX<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>] to REV\_SCH\_NUM\_BITS\_IDX<sub>r</sub>.
  - o Set REV\_WALSH\_ID<sub>s</sub> [REV\_SCH\_ID<sub>r</sub>][REV\_SCH\_NUM\_BITS\_IDX<sub>s</sub>] to REV\_WALSH\_ID<sub>r</sub>.
- + For each member of the Active Set included in the message, the mobile station shall perform the following:
  - o Set PILOT\_PN to PILOT\_PNr.
  - o If SRCH\_OFFSET\_INCL<sub>r</sub> equals to '1', set the SRCH\_OFFSET field of PILOT\_REC to SRCH\_OFFSET<sub>r</sub>; otherwise, set the SRCH\_OFFSET field of PILOT\_REC to '000'.
  - o Set ADD\_PILOT\_REC\_INCL to ADD\_PILOT\_REC\_INCL<sub>r</sub>.

- 1        o If ADD\_PILOT\_REC\_INCL<sub>r</sub> equals ‘1’, the mobile station shall also  
2              perform the following:
  - 3                ◊ Set the PILOT\_REC\_TYPE field of PILOT\_REC to  
4                      PILOT\_REC\_TYPE<sub>r</sub>.
  - 5                ◊ If PILOT\_REC\_TYPE<sub>r</sub> is equal to ‘000’, the mobile station shall  
6                      set the TD\_POWER\_LEVEL field of PILOT\_REC to  
7                      TD\_POWER\_LEVEL<sub>r</sub> and set the TD\_MODE field of  
8                      NGHBR\_PILOT\_REC to TD\_MODE<sub>r</sub>.
  - 9                ◊ If PILOT\_REC\_TYPE<sub>r</sub> is equal to ‘001’, the mobile station shall:
    - 10                  – Set the AUX\_PILOT\_QOF field of PILOT\_REC to QOF<sub>r</sub>.
    - 11                  – Set the AUX\_PILOT\_WALSH\_CODE field of PILOT\_REC to  
12                      AUX\_PILOT\_WALSH<sub>r</sub> with the Walsh Code length specified  
13                      by WALSH\_LENGTH<sub>r</sub>.
  - 14                ◊ If PILOT\_REC\_TYPE<sub>r</sub> is equal to ‘010’, the mobile station shall:
    - 15                  – Set the AUX\_PILOT\_TD\_QOF field of PILOT\_REC to QOF<sub>r</sub>.
    - 16                  – Set the AUX\_PILOT\_WALSH\_CODE field of PILOT\_REC to  
17                      AUX\_WALSH<sub>r</sub> with the Walsh Code length specified by  
18                      WALSH\_LENGTH<sub>r</sub>.
    - 19                  – Set the AUX\_TD\_POWER\_LEVEL field of PILOT\_REC to  
20                      AUX\_TD\_POWER\_LEVEL<sub>r</sub>.
    - 21                  – Set the TD\_MODE field of PILOT\_REC to TD\_MODE<sub>r</sub>.
  - 22                ◊ If PILOT\_REC\_TYPE<sub>r</sub> is equal to ‘011’, the mobile station shall:
    - 23                  – Set the SR3\_PRIMARY\_PILOT field of PILOT\_REC to  
24                      SR3\_PRIMARY\_PILOT<sub>r</sub>.
    - 25                  – Set the SR3\_PILOT\_POWER1 field of PILOT\_REC to  
26                      SR3\_PILOT\_POWER1<sub>r</sub>.
    - 27                  – Set the SR3\_PILOT\_POWER2 field of PILOT\_REC to  
28                      SR3\_PILOT\_POWER2<sub>r</sub>.
  - 29                ◊ If PILOT\_REC\_TYPE<sub>r</sub> is equal to ‘100’, the mobile station shall:
    - 30                  – Set the SR3\_PRIMARY\_PILOT field of PILOT\_REC to  
31                      SR3\_PRIMARY\_PILOT<sub>r</sub>.
    - 32                  – Set the SR3\_PILOT\_POWER1 field of PILOT\_REC to  
33                      SR3\_PILOT\_POWER1<sub>r</sub>.
    - 34                  – Set the SR3\_PILOT\_POWER2 field of PILOT\_REC to  
35                      SR3\_PILOT\_POWER2<sub>r</sub>.
    - 36                  – Set the AUX\_PILOT\_QOF field of PILOT\_REC to QOF<sub>r</sub>.

- 1        – Set the AUX\_PILOT\_WALSH\_CODE field of PILOT\_REC to  
2        AUX\_PILOT\_WALSH<sub>r</sub> with the Walsh Code length specified  
3        by WALSH\_LENGTH<sub>r</sub>.
- 4        – If ADD\_INFO\_INCL1<sub>r</sub> is equal to ‘1’, set the  
5        AUX\_PILOT\_QOF1 field of PILOT\_REC to QOF1<sub>r</sub> and set  
6        the AUX\_PILOT\_WALSH\_CODE1 field of PILOT\_REC to  
7        AUX\_PILOT\_WALSH1<sub>r</sub> with the Walsh Code length  
8        specified by WALSH\_LENGTH1<sub>r</sub>; otherwise, set the  
9        AUX\_PILOT\_QOF1 field of PILOT\_REC to QOF<sub>r</sub> and set the  
10      AUX\_PILOT\_WALSH\_CODE1 field of PILOT\_REC to  
11      AUX\_PILOT\_WALSH<sub>r</sub> with the Walsh Code length specified  
12      by WALSH\_LENGTH<sub>r</sub>.
- 13      – If ADD\_INFO\_INCL2<sub>r</sub> is equal to ‘1’, set the  
14      AUX\_PILOT\_QOF2 field of PILOT\_REC to QOF2<sub>r</sub> and set  
15      the AUX\_PILOT\_WALSH\_CODE2 field of PILOT\_REC to  
16      AUX\_PILOT\_WALSH2<sub>r</sub> with the Walsh Code length  
17      specified by WALSH\_LENGTH2<sub>r</sub>; otherwise, set the  
18      AUX\_PILOT\_QOF2 field of PILOT\_REC to QOF<sub>r</sub> and set the  
19      AUX\_PILOT\_WALSH\_CODE2 field of PILOT\_REC to  
20      AUX\_PILOT\_WALSH<sub>r</sub> with the Walsh Code length specified  
21      by WALSH\_LENGTH<sub>r</sub>.
- 22      o Store PWR\_COMB\_IND, CODE\_CHAN\_FCH and  
23      QOF\_MASK\_ID\_FCH.
- 24      o If SCH\_INCL<sub>r</sub> is equal to ‘1’ and NUM\_SCH is equal to ‘00000’, the  
25      mobile station shall delete the corresponding pilot from the all  
26      entries of the corresponding Supplemental Channel.
- 27      o If SCH\_INCL<sub>r</sub> is equal to ‘1’ and NUM\_SCH is not equal to ‘00000’,  
28      for each Supplemental Channel included in this record, the  
29      mobile station shall:
  - 30        ◊ If PILOT\_INCL is equal to ‘0’, the mobile station shall delete  
31        the corresponding pilot from the Active Set of Supplemental  
32        Channel for the corresponding SCCL\_INDEX<sub>r</sub>.
  - 33        ◊ If PILOT\_INCL is equal to ‘1’, for each Supplemental Channel  
34        included in this record, the mobile station shall set PILOT\_PNs  
35        [FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>][i] to PILOT\_Pn<sub>r</sub>,  
36        QOF\_IDs[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>][i] to  
37        QOF\_MASK\_ID\_SCH<sub>r</sub>, and  
38        FOR\_SCH\_CC\_INDEXs[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>][i] to  
39        CODE\_CHAN\_SCH<sub>r</sub>.

- 1                   ◊ The mobile station shall delete all pilots that are not included  
 2                   in the list specified by the NUM\_PILOTS field from the Active  
 3                   Set of Supplemental Channel for the corresponding  
 4                   SCCL\_INDEX<sub>r</sub>.
- 5       + If 3X\_FCH\_INFO\_INCL<sub>r</sub> equals to ‘1’, for each included member of the  
 6                   Active Set, the mobile station store the following:
- 7                   o If 3X\_FCH\_LOW\_INCL<sub>r</sub> equals ‘1’, set the  
 8                   QOF\_MASK\_ID\_FCH\_LOW field to QOF\_MASK\_ID\_FCH\_LOW<sub>r</sub> and  
 9                   the CODE\_CHAN\_FCH\_LOW field to CODE\_CHAN\_FCH\_LOW<sub>r</sub>.  
 10                  Otherwise, set the QOF\_MASK\_ID\_FCH\_LOW field to  
 11                  QOF\_MASK\_ID\_FCH<sub>r</sub> and the CODE\_CHAN\_FCH\_LOW to  
 12                  CODE\_CHAN\_FCH<sub>r</sub>.
- 13                  o If 3X\_FCH\_HIGH\_INCL<sub>r</sub> equals ‘1’, set the  
 14                  QOF\_MASK\_ID\_FCH\_HIGH field to QOF\_MASK\_ID\_FCH\_HIGH<sub>r</sub>  
 15                  and the CODE\_CHAN\_FCH\_HIGH field to  
 16                  CODE\_CHAN\_FCH\_HIGH<sub>r</sub>. Otherwise, set the  
 17                  QOF\_MASK\_ID\_FCH\_HIGH field to QOF\_MASK\_ID\_FCH<sub>r</sub> and the  
 18                  CODE\_CHAN\_FCH\_HIGH to CODE\_CHAN\_FCH<sub>r</sub>.
- 19                  o If 3X\_SCH\_INFO\_INCL<sub>r</sub> equals to ‘1’, for each Supplemental  
 20                  Channel included, the mobile station store the following:
- 21                   ◊ If 3X\_SCH\_LOW\_INCL<sub>r</sub> equals ‘1’, set the QOF\_ID\_SCH\_LOW<sub>s</sub>  
 22                   [FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>][i] to  
 23                   QOF\_MASK\_ID\_SCH\_LOW<sub>r</sub> and the  
 24                   FOR\_SCH\_CC\_INDEX\_LOW[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>][i]  
 25                   field to CODE\_CHAN\_SCH\_LOW<sub>r</sub>. Otherwise, set  
 26                   QOF\_ID\_SCH\_LOW<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>][i] to  
 27                   QOF\_MASK\_ID\_SCH<sub>r</sub>, and  
 28                   FOR\_SCH\_CC\_INDEX\_LOW<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>][i]  
 29                   to CODE\_CHAN\_SCH<sub>r</sub>.
- 30                   ◊ If 3X\_SCH\_HIGH\_INCL<sub>r</sub> equals ‘1’, set the  
 31                   QOF\_ID\_SCH\_HIGH<sub>s</sub> [FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>][i] to  
 32                   QOF\_MASK\_ID\_SCH\_HIGH<sub>r</sub> and the  
 33                   FOR\_SCH\_CC\_INDEX\_HIGH[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>][i]  
 34                   field to CODE\_CHAN\_SCH\_HIGH<sub>r</sub>. Otherwise, set  
 35                   QOF\_ID\_SCH\_HIGH<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>][i] to  
 36                   QOF\_MASK\_ID\_SCH<sub>r</sub>, and  
 37                   FOR\_SCH\_CC\_INDEX\_HIGH<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>][i]  
 38                   to CODE\_CHAN\_SCH<sub>r</sub>.
- 39       + The mobile station shall delete all pilots that are not listed in the  
 40                   NUM\_PILOTS field from the Active Set of Fundamental Channel.

- + The mobile station shall delete all pilots that are not listed in the Active Set of the Fundamental Channel from the Active Set of the Supplemental Channel for the Forward Supplemental Channel Assignment (if any). If these deleted pilots include all pilots in the Active Set of the Supplemental Channel, the mobile station shall cancel the Forward Supplemental Channel Assignment.
- If CH\_IND<sub>r</sub> is equal to '010' or '110', the mobile station shall perform the following:
  - + The mobile station shall set CH\_IND<sub>s</sub> = '10'.
  - + If SCH\_INCL<sub>r</sub> is equal to '1' and NUM\_FOR\_SCH is not equal to '00000', for all the NUM\_FOR\_SCH occurrences, the mobile station shall perform the following:
    - o The mobile station shall determine, N\_FSCH\_BITS\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>], the number of information bits per Forward Supplemental Channel frame identified by FOR\_SCH\_ID and corresponding to the index SCCL\_INDEX according to the following rules:
      - ◊ If FSCH\_VAR\_TABLE\_ID<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>] is equal to '000', then:
        - If USE\_FLEX\_NUM\_BITS<sub>s</sub> is equal to '0' or if USE\_FLEX\_NUM\_BITS<sub>s</sub> is equal to '1' and FSCH\_NBIT\_TABLE\_ID<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>] is equal to '0000', then the mobile station shall set the number of information bits per frame, N\_FSCH\_BITS\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>] and number of CRC bits per frame, FSCH\_CRC\_LEN\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>], according to Table 3.7.3.3.2.37-2 using FOR\_SCH\_NUM\_BITS\_IDX<sub>r</sub> as the index to the table.

- If USE\_FLEX\_NUM\_BITS<sub>s</sub> is equal to '1' and FSCH\_NBIT\_TABLE\_ID<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>] is not equal to '0000', then the mobile station shall set the number of CRC bits per frame, FSCH\_CRC\_LEN\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>], using Table 3.7.5.20-1 and CRC\_LEN\_IDX<sub>s</sub>[FSCH\_NBIT\_TABLE\_ID<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>]][FOR\_SCH\_NUM\_BITS\_IDX<sub>r</sub>] as the index to the table.  
The mobile station shall also set the number of information bits per frame corresponding to SCCL\_INDEX<sub>r</sub>, N\_FSCH\_BITS\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>], to NUM\_BITS<sub>s</sub>[FSCH\_NBIT\_TABLE\_ID<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>]][FOR\_SCH\_NUM\_BITS\_IDX<sub>r</sub>].
- ◊ If FSCH\_VAR\_TABLE\_ID<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>] is not equal to '000', then:
  - The mobile station shall set N\_FSCH\_BITS\_IDX\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>], the set of indices to the number of information bits per frame as follows:
    - + If FOR\_SCH\_NUM\_BITS\_IDX<sub>r</sub> is equal to '0000', then N\_FSCH\_BITS\_IDX\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>] = {FOR\_SCH\_NUM\_BITS\_IDX<sub>r</sub>},
    - + otherwise the mobile station shall set (initialize) N\_FSCH\_BITS\_IDX\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>] = {FOR\_SCH\_NUM\_BITS\_IDX<sub>r</sub>} and for i=1, ..., FOR\_SCH\_NUM\_BITS\_IDX<sub>r</sub> the mobile station shall add FOR\_SCH\_NUM\_BITS\_IDX<sub>r</sub> - VAR\_FSCH\_RATE\_OFFSET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][FOR\_SCH\_NUM\_BITS\_IDX<sub>r</sub>][i] to the set specified by N\_FSCH\_BITS\_IDX\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>]
  - If USE\_FLEX\_NUM\_BITS<sub>s</sub> is equal to '0' or if USE\_FLEX\_NUM\_BITS<sub>s</sub> is equal to '1' and FSCH\_NBIT\_TABLE\_ID<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>] is equal to '0000', then the mobile station shall set N\_FSCH\_BITS\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>], the set of number of information bits per frame as follows. The *i*<sup>th</sup> member of the set N\_FSCH\_BITS\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>] is obtained using Table 3.7.3.3.2.37-2 and the *i*<sup>th</sup> member of the set N\_FSCH\_BITS\_IDX\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>] as the index to the table.

- If USE\_FLEX\_NUM\_BITS<sub>s</sub> is equal to '1' and FSCH\_NBIT\_TABLE\_ID<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>] is not equal to '0000', then
  - + the mobile station shall set N\_FSCH\_BITS\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>], the set of number of information bits per frame as follows.  
The  $t^{\text{th}}$  member of the set N\_FSCH\_BITS\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>] is equal to NUM\_BITS<sub>s</sub>[FSCH\_NBIT\_TABLE\_ID<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>]] [N\_FSCH\_BITS\_IDX\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][i]], where N\_FSCH\_BITS\_IDX\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][i] denotes the  $t^{\text{th}}$  member of the set N\_FSCH\_BITS\_IDX\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>] and,
  - + the mobile station shall set FSCH\_CRC\_LEN\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>], the set of number CRC bits per frame as follows.  
The  $t^{\text{th}}$  member of the set FSCH\_CRC\_LEN\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>] using Table 3.7.5.20-1 and CRC\_LEN\_IDX<sub>s</sub>[FSCH\_NBIT\_TABLE\_ID<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>]] [N\_FSCH\_BITS\_IDX\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][i]] as the index to the table, where N\_FSCH\_BITS\_IDX\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][i] denotes the  $t^{\text{th}}$  member of the set N\_FSCH\_BITS\_IDX\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>].
- + If SCH\_INCL<sub>r</sub> is equal to '1' and NUM\_REV\_SCH is not equal to '00000', for all the NUM\_REV\_SCH occurrences, the mobile station shall perform the following:
  - o Set REV\_SCH\_NUM\_BITS\_IDX<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>] to REV\_SCH\_NUM\_BITS\_IDX<sub>r</sub>.
  - o Set REV\_WALSH\_ID<sub>s</sub> [REV\_SCH\_ID<sub>r</sub>][REV\_SCH\_NUM\_BITS\_IDX<sub>s</sub>] to REV\_WALSH\_ID<sub>r</sub>.
- + For each member of the Active Set included in the message, the mobile station shall perform the followings:
  - o Set PILOT\_PN to PILOT\_PNr.
  - o If SRCH\_OFFSET\_INCL<sub>r</sub> equals to '1', set the SRCH\_OFFSET field of PILOT\_REC to SRCH\_OFFSET<sub>r</sub>; otherwise, set the SRCH\_OFFSET field of PILOT\_REC to '000'.
  - o Set ADD\_PILOT\_REC\_INCL to ADD\_PILOT\_REC\_INCL<sub>r</sub>.

- 1        o If ADD\_PILOT\_REC\_INCL<sub>r</sub> equals ‘1’, the mobile station shall also  
2              perform the following:
  - 3                ◊ Set the PILOT\_REC\_TYPE field of PILOT\_REC to  
4                      PILOT\_REC\_TYPE<sub>r</sub>.
  - 5                ◊ If PILOT\_REC\_TYPE<sub>r</sub> is equal to ‘000’, the mobile station shall  
6                      set the TD\_POWER\_LEVEL field of PILOT\_REC to  
7                      TD\_POWER\_LEVEL<sub>r</sub> and set the TD\_MODE field of  
8                      PILOT\_REC to TD\_MODE<sub>r</sub>.
  - 9                ◊ If PILOT\_REC\_TYPE<sub>r</sub> is equal to ‘001’, the mobile station shall:
    - 10                  – Set the AUX\_PILOT\_QOF field of PILOT\_REC to QOF<sub>r</sub>.
    - 11                  – Set the AUX\_PILOT\_WALSH\_CODE field of PILOT\_REC to  
12                      AUX\_PILOT\_WALSH<sub>r</sub> with the Walsh Code length specified  
13                      by WALSH\_LENGTH<sub>r</sub>.
  - 14                ◊ If PILOT\_REC\_TYPE<sub>r</sub> is equal to ‘010’, the mobile station shall:
    - 15                  – Set the AUX\_PILOT\_TD\_QOF field of PILOT\_REC to QOF<sub>r</sub>.
    - 16                  – Set the AUX\_PILOT\_WALSH\_CODE field of PILOT\_REC to  
17                      AUX\_WALSH<sub>r</sub> with the Walsh Code length specified by  
18                      WALSH\_LENGTH<sub>r</sub>.
    - 19                  – Set the AUX\_TD\_POWER\_LEVEL field of PILOT\_REC to  
20                      AUX\_TD\_POWER\_LEVEL<sub>r</sub>.
    - 21                  – Set the TD\_MODE field of PILOT\_REC to TD\_MODE<sub>r</sub>.
  - 22                ◊ If PILOT\_REC\_TYPE<sub>r</sub> is equal to ‘011’, the mobile station shall:
    - 23                  – Set the SR3\_PRIMARY\_PILOT field of PILOT\_REC to  
24                      SR3\_PRIMARY\_PILOT<sub>r</sub>.
    - 25                  – Set the SR3\_PILOT\_POWER1 field of PILOT\_REC to  
26                      SR3\_PILOT\_POWER1<sub>r</sub>.
    - 27                  – Set the SR3\_PILOT\_POWER2 field of PILOT\_REC to  
28                      SR3\_PILOT\_POWER2<sub>r</sub>.
  - 29                ◊ If PILOT\_REC\_TYPE<sub>r</sub> is equal to ‘100’, the mobile station shall:
    - 30                  – Set the SR3\_PRIMARY\_PILOT field of PILOT\_REC to  
31                      SR3\_PRIMARY\_PILOT<sub>r</sub>.
    - 32                  – Set the SR3\_PILOT\_POWER1 field of PILOT\_REC to  
33                      SR3\_PILOT\_POWER1<sub>r</sub>.
    - 34                  – Set the SR3\_PILOT\_POWER2 field of PILOT\_REC to  
35                      SR3\_PILOT\_POWER2<sub>r</sub>.
    - 36                  – Set the AUX\_PILOT\_QOF field of PILOT\_REC to QOF<sub>r</sub>.

- Set the AUX\_PILOT\_WALSH\_CODE field of PILOT\_REC to AUX\_PILOT\_WALSH<sub>r</sub> with the Walsh Code length specified by WALSH\_LENGTH<sub>r</sub>.
- If ADD\_INFO\_INCL1<sub>r</sub> is equal to ‘1’, set the AUX\_PILOT\_QOF1 field of PILOT\_REC to QOF1<sub>r</sub> and set the AUX\_PILOT\_WALSH\_CODE1 field of PILOT\_REC to AUX\_PILOT\_WALSH1<sub>r</sub> with the Walsh Code length specified by WALSH\_LENGTH1<sub>r</sub>; otherwise, set the AUX\_PILOT\_QOF1 field of PILOT\_REC to QOF<sub>r</sub> and set the AUX\_PILOT\_WALSH\_CODE1 field of PILOT\_REC to AUX\_PILOT\_WALSH<sub>r</sub> with the Walsh Code length specified by WALSH\_LENGTH<sub>r</sub>.
- If ADD\_INFO\_INCL2<sub>r</sub> is equal to ‘1’, set the AUX\_PILOT\_QOF2 field of PILOT\_REC to QOF2<sub>r</sub> and set the AUX\_PILOT\_WALSH\_CODE2 field of PILOT\_REC to AUX\_PILOT\_WALSH2<sub>r</sub> with the Walsh Code length specified by WALSH\_LENGTH2<sub>r</sub>; otherwise, set the AUX\_PILOT\_QOF2 field of PILOT\_REC to QOF<sub>r</sub> and set the AUX\_PILOT\_WALSH\_CODE2 field of PILOT\_REC to AUX\_PILOT\_WALSH<sub>r</sub> with the Walsh Code length specified by WALSH\_LENGTH<sub>r</sub>.
- o Store PWR\_COMB\_IND, CODE\_CHAN\_DCCH and QOF\_MASK\_ID\_DCCH.
- o If SCH\_INCL<sub>r</sub> is equal to ‘1’ and NUM\_SCH is equal to ‘00000’, the mobile station shall delete the corresponding pilot from all entries of the corresponding Supplemental Channel.
- o If SCH\_INCL<sub>r</sub> is equal to ‘1’ and NUM\_SCH is not equal to ‘00000’, the mobile station shall:
  - ◊ If PILOT\_INCL is equal to ‘0’, the mobile station shall delete the corresponding pilot from the Active Set of Supplemental Channel for the corresponding SCCL\_INDEX<sub>r</sub>.
  - ◊ If PILOT\_INCL is equal to ‘1’, for each Supplemental Channel included in this record, the mobile station shall set PILOT\_PNs [FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>S</sub>][i] to PILOT\_PN<sub>r</sub>, QOF\_ID<sub>S</sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>S</sub>][i] to QOF\_MASK\_ID\_SCH<sub>r</sub>, and FOR\_SCH\_CC\_INDEX<sub>S</sub> [FOR\_SCH\_ID<sub>S</sub>][SCCL\_INDEX<sub>S</sub>][i] to CODE\_CHAN\_SCH<sub>r</sub>.
  - ◊ The mobile station shall delete all pilots that are not included in the list specified by the NUM\_PILOTS field from the Active Set of Supplemental Channel for the corresponding SCCL\_INDEX<sub>r</sub>.

- + If  $3X_{DCCH\_INFO\_INCL_r}$  equals to ‘1’, for each included member of the Active Set, the mobile station store the following:
  - o If  $3X_{DCCH\_LOW\_INCL_r}$  equals ‘1’, set the  $QOF\_MASK\_ID\_DCCH\_LOW$  field to  $QOF\_MASK\_ID\_DCCH\_LOW_r$  and the  $CODE\_CHAN\_DCCH\_LOW$  field to  $CODE\_CHAN\_DCCH\_LOW_r$ . Otherwise, set the  $QOF\_MASK\_ID\_DCCH\_LOW$  field to  $QOF\_MASK\_ID\_FCH_r$  and the  $CODE\_CHAN\_DCCH\_LOW$  to  $CODE\_CHAN\_FCH_r$ .
  - o If  $3X_{DCCH\_HIGH\_INCL_r}$  equals ‘1’, set the  $QOF\_MASK\_ID\_DCCH\_HIGH$  field to  $QOF\_MASK\_ID\_DCCH\_HIGH_r$  and the  $CODE\_CHAN\_DCCH\_HIGH$  field to  $CODE\_CHAN\_DCCH\_HIGH_r$ . Otherwise, set the  $QOF\_MASK\_ID\_DCCH\_HIGH$  field to  $QOF\_MASK\_ID\_FCH_r$  and the  $CODE\_CHAN\_DCCH\_HIGH$  to  $CODE\_CHAN\_FCH_r$ .
  - o If  $3X_{SCH\_INFO\_INCL_r}$  equals to ‘1’, for each Supplemental Channel included, the mobile station store the following:
    - ◊ If  $3X_{SCH\_LOW\_INCL_r}$  equals ‘1’, set  $QOF\_ID\_SCH\_LOW[FOR\_SCH\_ID_r][SCCL\_INDEX_r][i]$  to  $QOF\_MASK\_ID\_SCH\_LOW_r$  and  $FOR\_SCH\_CC\_INDEX\_LOW[FOR\_SCH\_ID_r][SCCL\_INDEX_r][i]$  field to  $CODE\_CHAN\_SCH\_LOW_r$ . Otherwise, set  $QOF\_ID\_SCH\_LOW[FOR\_SCH\_ID_r][SCCL\_INDEX_r][i]$  to  $QOF\_MASK\_ID\_SCH_r$ , and  $FOR\_SCH\_CC\_INDEX\_LOW[FOR\_SCH\_ID_r][SCCL\_INDEX_r][i]$  to  $CODE\_CHAN\_SCH_r$ .
    - ◊ If  $3X_{SCH\_HIGH\_INCL_r}$  equals ‘1’, set  $QOF\_ID\_SCH\_HIGH[FOR\_SCH\_ID_r][SCCL\_INDEX_r][i]$  to  $QOF\_MASK\_ID\_SCH\_HIGH_r$  and the  $FOR\_SCH\_CC\_INDEX\_HIGH[FOR\_SCH\_ID_r][SCCL\_INDEX_r][i]$  field to  $CODE\_CHAN\_SCH\_HIGH_r$ . Otherwise, set  $QOF\_ID\_SCH\_HIGH[FOR\_SCH\_ID_r][SCCL\_INDEX_r][i]$  to  $QOF\_MASK\_ID\_SCH_r$ , and  $FOR\_SCH\_CC\_INDEX\_HIGH[FOR\_SCH\_ID_r][SCCL\_INDEX_r][i]$  to  $CODE\_CHAN\_SCH_r$ .
- + The mobile station shall delete all pilots that are not listed in the  $NUM\_PILOTS$  field from the Active Set of Dedicated Control Channel.
- + The mobile station shall delete all pilots that are not listed in the Active Set of the Dedicated Control Channel from the Active Set of the Supplemental Channel for the Forward Supplemental Channel Assignment (if any). If these deleted pilots include all pilots in the Active Set of the Supplemental Channel, the mobile station shall cancel the Forward Supplemental Channel Assignment.

- If CH\_IND<sub>r</sub> is equal to '111', the mobile station shall perform the following:
  - + The mobile station shall set CH\_IND<sub>s</sub> = '11'.
  - + If SCH\_INCL<sub>r</sub> is equal to '1' and NUM\_FOR\_SCH is not equal to '00000', for all the NUM\_FOR\_SCH occurrences, the mobile station shall perform the following:
    - o The mobile station shall determine, N\_FSCH\_BITS\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>], the number of information bits per Forward Supplemental Channel frame identified by FOR\_SCH\_ID and corresponding to the index SCCL\_INDEX according to the following rules:
      - ◊ If FSCH\_VAR\_TABLE\_ID<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>] is equal to '000', then:
        - If USE\_FLEX\_NUM\_BITS<sub>s</sub> is equal to '0' or if USE\_FLEX\_NUM\_BITS<sub>s</sub> is equal to '1' and FSCH\_NBIT\_TABLE\_ID<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>] is equal to '0000', then the mobile station shall set the number of information bits per frame, N\_FSCH\_BITS\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>] and number of CRC bits per frame, FSCH\_CRC\_LEN\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>], according to Table 3.7.3.3.2.37-2 using FOR\_SCH\_NUM\_BITS\_IDX<sub>r</sub> as the index to the table.
        - If USE\_FLEX\_NUM\_BITS<sub>s</sub> is equal to '1' and FSCH\_NBIT\_TABLE\_ID<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>] is not equal to '0000', then the mobile station shall set the number of CRC bits per frame, FSCH\_CRC\_LEN\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>], using Table 3.7.5.20-1 and CRC\_LEN\_IDX<sub>s</sub>[FSCH\_NBIT\_TABLE\_ID<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>]][FOR\_SCH\_NUM\_BITS\_IDX<sub>r</sub>] as the index to the table.
      - The mobile station shall also set the number of information bits per frame corresponding to SCCL\_INDEX<sub>r</sub>, N\_FSCH\_BITS\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>], to NUM\_BITS<sub>s</sub>[FSCH\_NBIT\_TABLE\_ID<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>]][FOR\_SCH\_NUM\_BITS\_IDX<sub>r</sub>].
    - ◊ If FSCH\_VAR\_TABLE\_ID<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>] is not equal to '000', then:
      - The mobile station shall set N\_FSCH\_BITS\_IDX\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>], the set of indices to the number of information bits per frame as follows:

- + If FOR\_SCH\_NUM\_BITS\_IDX<sub>r</sub> is equal to '0000', then  
 $N_{FSCH\_BITS\_IDX\_SET_s}[FOR\_SCH\_ID_r] = \{$   
 $FOR\_SCH\_NUM\_BITS\_IDX_r\},$
- + otherwise the mobile station shall set (initialize)  
 $N_{FSCH\_BITS\_IDX\_SET_s}[FOR\_SCH\_ID_r] = \{FOR\_SCH\_NUM\_BITS\_IDX_r\}$  and for i=1, ...,  
 $FOR\_SCH\_NUM\_BITS\_IDX_r$  the mobile station shall  
add  $FOR\_SCH\_NUM\_BITS\_IDX_r - VAR_{FSCH\_RATE\_OFFSET_s}[FOR\_SCH\_ID_r][FOR\_SCH\_NUM\_BITS\_IDX_r][i]$  to the set specified by  
 $N_{FSCH\_BITS\_IDX\_SET_s}[FOR\_SCH\_ID_r]$
- If USE\_FLEX\_NUM\_BITS<sub>s</sub> is equal to '0' or if  
USE\_FLEX\_NUM\_BITS<sub>s</sub> is equal to '1' and  
FSCH\_NBIT\_TABLE\_ID<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>] is equal to '0000',  
then the mobile station shall set  
 $N_{FSCH\_BITS\_SET_s}[FOR\_SCH\_ID_r][SCCL\_INDEX_r]$ , the  
set of number of information bits per frame as follows.  
The  $i^{\text{th}}$  member of the set  
 $N_{FSCH\_BITS\_SET_s}[FOR\_SCH\_ID_r][SCCL\_INDEX_r]$  is  
obtained using Table 3.7.3.3.2.37-2 and the  $i^{\text{th}}$  member of  
the set  $N_{FSCH\_BITS\_IDX\_SET_s}[FOR\_SCH\_ID_r]$  as the  
index to the table.
- If USE\_FLEX\_NUM\_BITS<sub>s</sub> is equal to '1' and  
FSCH\_NBIT\_TABLE\_ID<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>] is not equal to  
'0000', then
  - + the mobile station shall set  
 $N_{FSCH\_BITS\_SET_s}[FOR\_SCH\_ID_r][SCCL\_INDEX_r]$ ,  
the set of number of information bits per frame as  
follows.  
The  $i^{\text{th}}$  member of the set  
 $N_{FSCH\_BITS\_SET_s}[FOR\_SCH\_ID_r][SCCL\_INDEX_r]$  is  
equal to  
 $NUM\_BITS_s[FSCH\_NBIT\_TABLE\_ID_s[FOR\_SCH\_ID_r]]$   
 $[N_{FSCH\_BITS\_IDX\_SET_s}[FOR\_SCH\_ID_r][i]],$  where  
 $N_{FSCH\_BITS\_IDX\_SET_s}[FOR\_SCH\_ID_r][i]$  denotes the  
 $i^{\text{th}}$  member of the set  
 $N_{FSCH\_BITS\_IDX\_SET_s}[FOR\_SCH\_ID_r]$  and,

- + the mobile station shall set  $FSCH\_CRC\_LEN\_SET_s[FOR\_SCH\_ID_r][SCCL\_INDEX_r]$ , the set of number CRC bits per frame as follows.  
The  $t^{\text{th}}$  member of the set  $FSCH\_CRC\_LEN\_SET_s[FOR\_SCH\_ID_r][SCCL\_INDEX_r]$  using Table 3.7.5.20-1 and  $CRC\_LEN\_IDX_s[FSCH\_NBIT\_TABLE\_ID_s[FOR\_SCH\_ID_r]][N\_FSCH\_BITS\_IDX\_SET_s[FOR\_SCH\_ID_r][i]]$  as the index to the table, where  $N\_FSCH\_BITS\_IDX\_SET_s[FOR\_SCH\_ID_r][i]$  denotes the  $t^{\text{th}}$  member of the set  $N\_FSCH\_BITS\_IDX\_SET_s[FOR\_SCH\_ID_r]$ .
- + If  $SCH\_INCL_r$  is equal to ‘1’ and  $NUM\_REV\_SCH$  is not equal to ‘00000’, for all the  $NUM\_REV\_SCH$  occurrences, the mobile station shall perform the following:
  - o Set  $REV\_SCH\_NUM\_BITS\_IDX_s[REV\_SCH\_ID_r]$  to  $REV\_SCH\_NUM\_BITS\_IDX_r$ .
  - o Set  $REV\_WALSH\_ID_s[REV\_SCH\_ID_r][REV\_SCH\_NUM\_BITS\_IDX_s]$  to  $REV\_WALSH\_ID_r$ .
- + For each member in the Active Set included in the message, the mobile station shall perform the followings:
  - o Set  $PILOT\_PN$  to  $PILOT\_PN_r$ .
  - o If  $SRCH\_OFFSET\_INCL_r$  equals to ‘1’, set the  $SRCH\_OFFSET$  field of  $PILOT\_REC$  to  $SRCH\_OFFSET_r$ ; otherwise, set the  $SRCH\_OFFSET$  field of  $PILOT\_REC$  to ‘000’.
  - o Set  $ADD\_PILOT\_REC\_INCL$  to  $ADD\_PILOT\_REC\_INCL_r$ .
  - o If  $ADD\_PILOT\_REC\_INCL_r$  equals ‘1’, the mobile station shall also perform the following:
    - ◊ Set the  $PILOT\_REC\_TYPE$  field of  $PILOT\_REC$  to  $PILOT\_REC\_TYPE_r$ .
    - ◊ If  $PILOT\_REC\_TYPE_r$  is equal to ‘000’, the mobile station shall set the  $TD\_POWER\_LEVEL$  field of  $PILOT\_REC$  to  $TD\_POWER\_LEVEL_r$  and set the  $TD\_MODE$  field of  $PILOT\_REC$  to  $TD\_MODE_r$ .
    - ◊ If  $PILOT\_REC\_TYPE_r$  is equal to ‘001’, the mobile station shall:
      - Set the  $AUX\_PILOT\_QOF$  field of  $PILOT\_REC$  to  $QOF_r$ .
      - Set the  $AUX\_PILOT\_WALSH\_CODE$  field of  $PILOT\_REC$  to  $AUX\_PILOT\_WALSH_r$  with the Walsh Code length specified by  $WALSH\_LENGTH_r$ .
    - ◊ If  $PILOT\_REC\_TYPE_r$  is equal to ‘010’, the mobile station shall:

- Set the AUX\_PILOT\_TD\_QOF field of PILOT\_REC to QOF<sub>r</sub>.
- Set the AUX\_PILOT\_WALSH\_CODE field of PILOT\_REC to AUX\_WALSH<sub>r</sub> with the Walsh Code length specified by WALSH\_LENGTH<sub>r</sub>.
- Set the AUX\_TD\_POWER\_LEVEL field of PILOT\_REC to AUX\_TD\_POWER\_LEVEL<sub>r</sub>.
- Set the TD\_MODE field of PILOT\_REC to TD\_MODE<sub>r</sub>.
- ◊ If PILOT\_REC\_TYPE<sub>r</sub> is equal to '011', the mobile station shall:
  - Set the SR3\_PRIMARY\_PILOT field of PILOT\_REC to SR3\_PRIMARY\_PILOT<sub>r</sub>.
  - Set the SR3\_PILOT\_POWER1 field of PILOT\_REC to SR3\_PILOT\_POWER1<sub>r</sub>.
  - Set the SR3\_PILOT\_POWER2 field of PILOT\_REC to SR3\_PILOT\_POWER2<sub>r</sub>.
- ◊ If PILOT\_REC\_TYPE<sub>r</sub> is equal to '100', the mobile station shall:
  - Set the SR3\_PRIMARY\_PILOT field of PILOT\_REC to SR3\_PRIMARY\_PILOT<sub>r</sub>.
  - Set the SR3\_PILOT\_POWER1 field of PILOT\_REC to SR3\_PILOT\_POWER1<sub>r</sub>.
  - Set the SR3\_PILOT\_POWER2 field of PILOT\_REC to SR3\_PILOT\_POWER2<sub>r</sub>.
  - Set the AUX\_PILOT\_QOF field of PILOT\_REC to QOF<sub>r</sub>.
  - Set the AUX\_PILOT\_WALSH\_CODE field of PILOT\_REC to AUX\_PILOT\_WALSH<sub>r</sub> with the Walsh Code length specified by WALSH\_LENGTH<sub>r</sub>.
  - If ADD\_INFO\_INCL1<sub>r</sub> is equal to '1', set the AUX\_PILOT\_QOF1 field of PILOT\_REC to QOF1<sub>r</sub> and set the AUX\_PILOT\_WALSH\_CODE1 field of PILOT\_REC to AUX\_PILOT\_WALSH1<sub>r</sub> with the Walsh Code length specified by WALSH\_LENGTH1<sub>r</sub>; otherwise, set the AUX\_PILOT\_QOF1 field of PILOT\_REC to QOF<sub>r</sub> and set the AUX\_PILOT\_WALSH\_CODE1 field of PILOT\_REC to AUX\_PILOT\_WALSH<sub>r</sub> with the Walsh Code length specified by WALSH\_LENGTH<sub>r</sub>.

- If ADD\_INFO\_INCL<sub>2r</sub> is equal to '1', set the AUX\_PILOT\_QOF2 field of PILOT\_REC to QOF<sub>2r</sub> and set the AUX\_PILOT\_WALSH\_CODE2 field of PILOT\_REC to AUX\_PILOT\_WALSH<sub>2r</sub> with the Walsh Code length specified by WALSH\_LENGTH<sub>2r</sub>; otherwise, set the AUX\_PILOT\_QOF2 field of PILOT\_REC to QOF<sub>r</sub> and set the AUX\_PILOT\_WALSH\_CODE2 field of PILOT\_REC to AUX\_PILOT\_WALSH<sub>r</sub> with the Walsh Code length specified by WALSH\_LENGTH<sub>r</sub>.
- o Store PWR\_COMB\_IND, CODE\_CHAN\_FCH, QOF\_MASK\_ID\_FCH, CODE\_CHAN\_DCCH and QOF\_MASK\_ID\_DCCH.
- o If SCH\_INCL<sub>r</sub> is equal to '1' and NUM\_SCH is equal to '00000', the mobile station shall delete the corresponding pilot from all entries of the corresponding Supplemental Channel.
- o If SCH\_INCL<sub>r</sub> is equal to '1' and NUM\_SCH is not equal to '00000', the mobile station shall:
  - ◊ If PILOT\_INCL is equal to '0', the mobile station shall delete the corresponding pilot from the Active Set of Supplemental Channel for the corresponding SCCL\_INDEX<sub>r</sub>.
  - ◊ If PILOT\_INCL is equal to '1', for each Supplemental Channel included in this record, the mobile station shall set PILOT\_PNs<sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>][i]</sub> to PILOT\_PN<sub>r</sub>, QOF\_IDs<sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>][i]</sub> to QOF\_MASK\_ID\_SCH<sub>r</sub>, and FOR\_SCH\_CC\_INDEXs<sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>][i]</sub> to CODE\_CHAN\_SCH<sub>r</sub>.
  - ◊ The mobile station shall delete all pilots that are not included in the list specified by the NUM\_PILOTS field from the Active Set of Supplemental Channel for the corresponding SCCL\_INDEX<sub>r</sub>.
- + If 3X\_FCH\_INFO\_INCL<sub>r</sub> equals to '1', for each included member of the Active Set, the mobile station store the following:
  - o If 3X\_FCH\_LOW\_INCL<sub>r</sub> equals '1', set the QOF\_MASK\_ID\_FCH\_LOW field to QOF\_MASK\_ID\_FCH\_LOW<sub>r</sub> and the CODE\_CHAN\_FCH\_LOW field to CODE\_CHAN\_FCH\_LOW<sub>r</sub>. Otherwise, set the QOF\_MASK\_ID\_FCH\_LOW field to QOF\_MASK\_ID\_FCH<sub>r</sub> and the CODE\_CHAN\_FCH\_LOW to CODE\_CHAN\_FCH<sub>r</sub>.

- 1           o If  $3X_{-}FCH_{-}HIGH_{-}INCL_r$  equals ‘1’, set the  
   2            QOF\_MASK\_ID\_FCH\_HIGH field to  $QOF_{-}MASK_{-}ID_{-}FCH_{-}HIGH_r$   
   3            and the CODE\_CHAN\_FCH\_HIGH field to  
   4            CODE\_CHAN\_FCH\_HIGH<sub>r</sub>. Otherwise, set the  
   5            QOF\_MASK\_ID\_FCH\_HIGH field to  $QOF_{-}MASK_{-}ID_{-}FCH_r$  and the  
   6            CODE\_CHAN\_FCH\_HIGH to CODE\_CHAN\_FCH<sub>r</sub>.
- 7           + If  $3X_{-}DCCH_{-}INFO_{-}INCL_r$  equals to ‘1’, for each included member of  
   8            the Active Set, the mobile station store the following:  
- 9             o If  $3X_{-}DCCH_{-}LOW_{-}INCL_r$  equals ‘1’, set the  
   10            QOF\_MASK\_ID\_DCCH\_LOW field to  $QOF_{-}MASK_{-}ID_{-}DCCH_{-}LOW_r$   
   11            and the CODE\_CHAN\_DCCH\_LOW field to  
   12            CODE\_CHAN\_DCCH\_LOW<sub>r</sub>. Otherwise, set the  
   13            QOF\_MASK\_ID\_DCCH\_LOW field to  $QOF_{-}MASK_{-}ID_{-}FCH_r$  and the  
   14            CODE\_CHAN\_DCCH\_LOW to CODE\_CHAN\_FCH<sub>r</sub>.
- 15             o If  $3X_{-}DCCH_{-}HIGH_{-}INCL_r$  equals ‘1’, set the  
   16            QOF\_MASK\_ID\_DCCH\_HIGH field to  
   17            QOF\_MASK\_ID\_DCCH\_HIGH<sub>r</sub> and the CODE\_CHAN\_DCCH\_HIGH  
   18            field to CODE\_CHAN\_DCCH\_HIGH<sub>r</sub>. Otherwise, set the  
   19            QOF\_MASK\_ID\_DCCH\_HIGH field to  $QOF_{-}MASK_{-}ID_{-}FCH_r$  and  
   20            the CODE\_CHAN\_DCCH\_HIGH to CODE\_CHAN\_FCH<sub>r</sub>.
- 21           + If  $3X_{-}FCH_{-}INFO_{-}INCL_r$  or  $3X_{-}DCCH_{-}INFO_{-}INCL_r$  equals to ‘1’, for  
   22            each included member of the Active Set, the mobile station store the  
   23            following:  
- 24             o If  $3X_{-}SCH_{-}INFO_{-}INCL_r$  equals to ‘1’, for each Supplemental  
   25            Channel included, the mobile station store the following:  
- 26               ◊ If  $3X_{-}SCH_{-}LOW_{-}INCL_r$  equals ‘1’, set  
   27                QOF\_ID\_SCH\_LOW[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>][i] to  
   28                QOF\_MASK\_ID\_SCH\_LOW<sub>r</sub> and the  
   29                FOR\_SCH\_CC\_INDEX\_LOW[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>][i]  
   30                field to CODE\_CHAN\_SCH\_LOW<sub>r</sub>. Otherwise, set  
   31                QOF\_ID\_SCH\_LOW[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>][i] to  
   32                QOF\_MASK\_ID\_SCH<sub>r</sub>, and  
   33                FOR\_SCH\_CC\_INDEX\_LOW[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>][i]  
   34                to CODE\_CHAN\_SCH<sub>r</sub>.
- 35               ◊ If  $3X_{-}SCH_{-}HIGH_{-}INCL_r$  equals ‘1’, set  
   36                QOF\_ID\_SCH\_HIGH[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>][i] to  
   37                QOF\_MASK\_ID\_SCH\_HIGH<sub>r</sub> and the  
   38                FOR\_SCH\_CC\_INDEX\_HIGH[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>][i]  
   39                field to CODE\_CHAN\_SCH\_HIGH<sub>r</sub>. Otherwise, set  
   40                QOF\_ID\_SCH\_HIGH[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>][i] to  
   41                QOF\_MASK\_ID\_SCH<sub>r</sub>, and  
   42                FOR\_SCH\_CC\_INDEX\_HIGH[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>][i]  
   43                to CODE\_CHAN\_SCH<sub>r</sub>.

- + The mobile station shall delete all pilots that are not listed in the NUM\_PILOTS field from the Active Set of Fundamental Channel and Dedicated Control Channel.
- + The mobile station shall delete all pilots that are not listed in the Active Set of the Fundamental Channel and Dedicated Control Channel from the Active Set of the Supplemental Channel for the Forward Supplemental Channel Assignment (if any). If these deleted pilots include all pilots in the Active Set of the Supplemental Channel, the mobile station shall cancel the Forward Supplemental Channel Assignment.
- If the most significant bit of CH\_IND<sub>r</sub> is set to '1' and PILOT\_GATING\_USE\_RATE is equal to '1', the mobile station shall set PILOT\_GATING\_USE\_RATE to '0' and shall start the continuous reverse pilot at the specified action time. If the most significant bit of CH\_IND<sub>r</sub> is set to '0' and PILOT\_GATING\_USE\_RATE is equal to '0', the mobile station shall perform the following:
  - The mobile station shall set PILOT\_GATING\_USE\_RATE to '1' and shall start the reverse pilot gating at the specified action time.
  - If the Fundamental Channel is also being released, the mobile station shall store the configuration used for the Fundamental Channel.
  - The mobile station shall cancel the forward and reverse supplemental channel assignment, if any.
- The mobile station shall set IGNORE\_ESCAM<sub>S</sub> and IGNORE\_SCAM<sub>S</sub> to '0'.
- Set the pilot detection threshold for the Target Frequency and the Candidate Frequency:
  - Set TF\_T\_ADD<sub>S</sub> to T\_ADD<sub>S</sub>.
  - If the Target Frequency is the same as the Candidate Frequency (TF\_CDMABAND<sub>S</sub> is equal to CF\_CDMABAND<sub>S</sub> and TF\_CDMACH<sub>S</sub> is equal to CF\_CDMACH<sub>S</sub>), set CF\_T\_ADD<sub>S</sub> to T\_ADD<sub>S</sub>.
- If PERIODIC\_SEARCH<sub>S</sub> is equal to '0' and a periodic search is in progress, the mobile station shall abort the periodic search (see 2.6.6.2.8.3.4 and 2.6.6.2.10.4).
- Perform a soft or hard handoff depending on the following conditions:
  - If any of the following conditions is true, the mobile station shall perform a hard handoff:
    - + EXTRA\_PARMS is set to '1' and either BAND\_CLASS<sub>r</sub> is not equal to SF\_CDMABAND<sub>S</sub>, CDMA\_FREQ<sub>r</sub> is not equal to SF\_CDMACH<sub>S</sub>, or FRAME\_OFFSET<sub>r</sub> is not equal to SF\_FRAME\_OFFSET<sub>S</sub>, or
    - + The set of pilots specified by the message is disjoint from the Active Set prior to the action time of the message.

- If the mobile station performs a hard handoff, it shall do the following:
  - + If a Periodic Serving Frequency Pilot Report Procedure is in progress, the mobile station shall abort the procedure (see 2.6.6.2.12).
  - + If a Candidate Frequency periodic search is in progress, the mobile station shall abort the periodic search (see 2.6.6.2.8.3.4 and 2.6.6.2.10.4).
  - + If a Forward Supplemental Channel assignment or a Reverse Supplemental Channel assignment is in progress, the mobile station shall abort it.
  - + The mobile station shall cancel any outstanding Forward Supplemental Channel assignment or Reverse Supplemental Channel assignment that is not specified by this message.
  - + The mobile station shall cancel the current Forward Supplemental Channel assignment or the Reverse Supplemental Channel assignment, if it is in progress. If the message does not specify another Forward Supplemental Channel assignment or Reverse Supplemental Channel assignment, the mobile station shall cancel the outstanding Forward Supplemental Channel assignment or Reverse Supplemental Channel assignment, if any.
  - + If RETURN\_IF\_HANDOFF\_FAIL<sub>s</sub> is equal to '0', the mobile station shall perform actions specified in 2.6.6.2.8.1. If the message specifies more than one pilot, the mobile station shall also perform actions specified in 2.6.6.2.7.1 and 2.6.6.2.7.2.
  - + If RETURN\_IF\_HANDOFF\_FAIL<sub>s</sub> is equal to '1', the mobile station shall perform actions specified in 2.6.6.2.8.2. If the message specifies more than one pilot, the mobile station shall also perform actions specified in 2.6.6.2.7.1 and 2.6.6.2.7.2.
- Otherwise, the mobile station shall perform a soft handoff as specified in 2.6.6.2.7.

12. *Mobile Assisted Burst Operation Parameters Message:* The mobile station shall process this message as follows:

- The mobile station shall set ORDER\_FLAG<sub>s</sub> to ORDER\_FLAG<sub>r</sub>.
- If ORDER\_FLAG<sub>r</sub> is equal to '1', the mobile station shall perform the following:
  - The mobile station shall set PS\_MIN\_DELTA<sub>s</sub> to PS\_MIN\_DELTA<sub>r</sub> + 1.
  - The mobile station shall set ORDER\_INTERVAL<sub>s</sub> to ORDER\_INTERVAL<sub>r</sub>.
- If ORDER\_FLAG<sub>r</sub> is equal to '0', the mobile station shall perform the following:
  - The mobile station shall set PS\_MIN\_DELTA<sub>s</sub> to 0.

- 1           – The mobile station shall set ORDER\_INTERVAL<sub>s</sub> to 0.
- 2           • The mobile station shall set PERIODIC\_FLAG<sub>s</sub> to PERIODIC\_FLAG<sub>r</sub>.
- 3           • If PERIODIC\_FLAG<sub>r</sub> is equal to ‘1’, the mobile station shall perform the  
4           following:
  - 5           – The mobile station shall set NUM\_PILOTS<sub>s</sub> to NUM\_PILOTS<sub>r</sub>.
  - 6           – The mobile station shall set PERIODIC\_INTERVAL<sub>s</sub> to  
7           PERIODIC\_INTERVAL<sub>r</sub>.
- 8           • If PERIODIC\_FLAG<sub>r</sub> is equal to ‘0’, the mobile station shall perform the  
9           following:
  - 10          – The mobile station shall set NUM\_PILOTS<sub>s</sub> to 0.
  - 11          – The mobile station shall set PERIODIC\_INTERVAL<sub>s</sub> to 0.
- 12          • The mobile station shall set THRESHOLD\_FLAG<sub>s</sub> to THRESHOLD\_FLAG<sub>r</sub>.
- 13          • If THRESHOLD\_FLAG<sub>r</sub> is equal to ‘1’, the mobile station shall perform the  
14           following:
  - 15           – The mobile station shall set PS\_FLOOR\_LOW<sub>s</sub> to PS\_FLOOR\_LOW<sub>r</sub>.
  - 16           – The mobile station shall set PS\_FLOOR\_HIGH<sub>s</sub> to PS\_FLOOR\_HIGH<sub>r</sub>.
  - 17           – The mobile station shall set PS\_CEILING\_LOW<sub>s</sub> to PS\_CEILING\_LOW<sub>r</sub>.
  - 18           – The mobile station shall set PS\_CEILING\_HIGH<sub>s</sub> to PS\_CEILING\_HIGH<sub>r</sub>.
- 19          • If THRESHOLD\_FLAG<sub>r</sub> is equal to ‘0’, the mobile station shall perform the  
20           following:
  - 21           – The mobile station shall set PS\_FLOOR\_LOW<sub>s</sub> to ‘0’.
  - 22           – The mobile station shall set PS\_FLOOR\_HIGH<sub>s</sub> to ‘0’.
  - 23           – The mobile station shall set PS\_CEILING\_LOW<sub>s</sub> to ‘0’.
  - 24           – The mobile station shall set PS\_CEILING\_HIGH<sub>s</sub> to ‘0’.

25         13. *Extended Supplemental Channel Assignment Message*: The mobile station shall  
26           process this message as follows:

27         The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field  
28           set to the specified value if any of the following conditions is true, and shall not  
29           perform any other action described in this section for processing the *Extended  
30           Supplemental Channel Assignment Message*:

- 31           • The mobile station shall send a *Mobile Station Reject Order* with the ORDQ  
32           field set to ‘00000110’ (capability not supported), if the number of forward or  
33           reverse Supplemental Channels specified in the *Extended Supplemental  
34           Channel Assignment Message* is greater than the maximum number of  
35           Supplemental Channels supported by the mobile station.

- 1     • The mobile station shall send a *Mobile Station Reject Order* with the ORDQ  
2       field set to ‘00000100’ (message field not in valid range), if PILOT\_PN  
3       specified in the *Extended Supplemental Channel Assignment Message* is not  
4       in the Active Set.
- 5     • The mobile station shall send a *Mobile Station Reject Order* with the ORDQ  
6       field set to ‘00000111’ (message can not be handled by the current mobile  
7       station configuration), if the message includes a reverse Supplemental  
8       Channel assignment, and any of the mobile station’s reverse supplemental  
9       channel configuration parameter for the corresponding Supplemental  
10      Channel ~~is not included in the message and its stored value  
(REV\_SCH\_MUX<sub>s</sub>, REV\_SCH\_RC<sub>s</sub>, REV\_SCH\_CODING<sub>s</sub>,~~  
~~REV\_SCH\_FRAME\_LENGTH<sub>s</sub>, QOF\_ID<sub>s</sub> for the corresponding SCCL\_INDEX<sub>r</sub>,~~  
~~or FOR\_SCH\_CC\_INDEX<sub>s</sub> for the corresponding SCCL\_INDEX<sub>r</sub>)~~ is NULL.
- 11     • The mobile station shall send a *Mobile Station Reject Order* with the ORDQ  
12       field set to ‘00000111’ (message can not be handled by the current mobile  
13       station configuration), if the message includes a forward Supplemental  
14       Channel assignment and any of the mobile station’s forward supplemental  
15       channel configuration parameter for the corresponding Supplemental  
16       Channel ~~(FOR\_SCH\_MUX<sub>s</sub>, FOR\_SCH\_RC<sub>s</sub>, FOR\_SCH\_CODING<sub>s</sub>, or  
FOR\_SCH\_FRAME\_LENGTH<sub>s</sub>)~~ is NULL.

21     If none of the above conditions is true, the mobile station shall perform the  
22     following:

- 23     • The mobile station shall store REV\_SCH\_DTX\_DURATION<sub>r</sub>, Reverse  
24       Supplemental Channel Discontinuous Transmission Duration, as  
25       REV\_SCH\_DTX\_DURATION<sub>s</sub>.
- 26     • The mobile station shall store the unit for START\_TIME\_UNIT<sub>s</sub> =  
27       START\_TIME\_UNIT<sub>r</sub>.
- 28     • The mobile station shall store USE\_T\_ADD\_ABORT<sub>r</sub>, Reverse Supplemental  
29       Channel assignment T\_ADD abort indicator, as USE\_T\_ADD\_ABORT<sub>s</sub>.
- 30     • If IGNORE\_ESCAM<sub>s</sub> is equal to ‘1’ and SCRM\_SEQ\_NUM<sub>r</sub> is not present or is  
31       present and is not equal to SCRM\_SEQ\_NUM<sub>s</sub>, then the mobile station shall  
32       not process the remaining Reverse Supplemental Channel assignment  
33       information in this message.
- 34     • If IGNORE\_ESCAM<sub>s</sub> is equal to ‘1’ and SCRM\_SEQ\_NUM<sub>r</sub> is present and is  
35       equal to SCRM\_SEQ\_NUM<sub>s</sub>, then the mobile station shall set  
36       IGNORE\_ESCAM<sub>s</sub> to ‘0’.
- 37     • If ADD\_INFO\_INCL<sub>r</sub> is equal to ‘1’, the message includes a Supplemental  
38       Channel assignment (that is, NUM\_FOR\_SCH<sub>r</sub> is not equal to ‘00’ and/or  
39       NUM\_REV\_SCH<sub>r</sub> is not equal to ‘00’), and PILOT\_GATING\_USE\_RATE is  
40       equal to ‘1’, the mobile station shall process the following information of the  
41       *Extended Supplemental Channel Assignment Message* as follows:

- The mobile station shall set FPC\_PRI\_CHAN<sub>s</sub> = FPC\_PRI\_CHAN<sub>r</sub> at the action time of the message.
- ~~- The mobile station shall set PILOT\_GATING\_USE\_RATE to '0' and shall start the continuous reverse pilot at the specified action time.~~
- ~~If the Fundamental Channel was previously established prior to transitioning to the Control Hold Mode, the mobile station shall start processing F FCH and start transmitting on R FCH at the action time of the message. The mobile station shall establish the Fundamental Channel with the same configuration as previously used.~~
- If REV\_CFG\_INCLUDED is equal to '1', for all the (NUM\_REV\_CFG\_RECS + 1) occurrences of the reverse configuration record, the mobile station shall store the REV\_WALSH\_ID matrix as follows:
  - REV\_WALSH\_ID<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>][REV\_SCH\_NUM\_BITS\_IDX<sub>r</sub>] = REV\_WALSH\_ID<sub>r</sub>
  - If NUM\_REV\_SCH<sub>r</sub> is not equal to '00', then the mobile station ~~set PILOT\_GATING\_USE\_RATE to '0' and~~ shall store the following information for each occurrence of the record and process the Reverse Supplemental Burst as specified in 2.6.6.2.5.1.2:
    - REV\_SCH\_START\_TIME\_INCL<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>] = REV\_SCH\_START\_TIME\_INCL<sub>r</sub>
    - If REV\_SCH\_START\_TIME\_INCL<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>] is set to '1', set REV\_SCH\_START\_TIME<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>] = REV\_SCH\_START\_TIME<sub>r</sub>
    - REV\_SCH\_DURATION<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>] = REV\_SCH\_DURATION<sub>r</sub>
    - REV\_SCH\_NUM\_BITS\_IDX<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>] = REV\_SCH\_NUM\_BITS\_IDX<sub>r</sub>
  - If NUM\_FOR\_SCH<sub>r</sub> is not equal to '00', then the mobile station shall ~~set PILOT\_GATING\_USE\_RATE to '0' and~~ store the following information for each occurrence of the record and process the Forward Supplemental Burst as specified in 2.6.6.2.5.1.1:
    - FOR\_SCH\_START\_TIME\_INCL<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>] = FOR\_SCH\_START\_TIME\_INCL<sub>r</sub>
    - If FOR\_SCH\_START\_TIME\_INCL<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>] is set to '1', set FOR\_SCH\_START\_TIME<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>] = FOR\_SCH\_START\_TIME<sub>r</sub>
    - FOR\_SCH\_DURATION<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>] = FOR\_SCH\_DURATION<sub>r</sub>
    - FOR\_SCH\_FER\_REP<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>] = FOR\_SCH\_FER\_REP<sub>r</sub>
    - SCCL\_INDEX<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>] = SCCL\_INDEX<sub>r</sub>
  - ~~If FOR\_CFG\_INCLUDED is equal to '1', the mobile station shall perform the following: Set FOR\_SCH\_FER\_REP<sub>s</sub> to FOR\_SCH\_FER\_REP<sub>r</sub>.~~

- If FOR\_CFG\_INCLUDED is equal to '1', the mobile station shall perform the following:
  - Set FOR\_SCH\_FER REP<sub>s</sub> to FOR\_SCH\_FER REP<sub>r</sub>.
  - If FOR\_SCH\_FER REP<sub>r</sub> is equal to '0', set SCH\_TOT\_FRAMES<sub>s</sub> and SCH\_BAD\_FRAMES<sub>s</sub> to 0.
  - Store NUM\_FOR\_CFG\_RECS occurrences of Forward Supplemental Channel Configuration associated with the identification of Forward Supplemental Channel.
- For each record of the Forward Supplemental Channel Code list the mobile station shall store the Forward Supplemental Channel Code list associated with the FOR\_SCH\_ID<sub>r</sub> as follows:
  - NUM\_SUP\_SHO<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>] = NUM\_SUP\_SHO<sub>r</sub>.
  - The mobile station shall determine, N\_FSCH\_BITS\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>], the number of information bits per Forward Supplemental Channel frame identified by FOR\_SCH\_ID and corresponding to the index SCCL\_INDEX according to the following rules:
    - + If FSCH\_VAR\_TABLE\_ID<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>] is equal to '000', then:
      - o If USE\_FLEX\_NUM\_BITS<sub>s</sub> is equal to '0' or if USE\_FLEX\_NUM\_BITS<sub>s</sub> is equal to '1' and FSCH\_NBIT\_TABLE\_ID<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>] is equal to '0000', then the mobile station shall set the number of information bits per frame, N\_FSCH\_BITS\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>] and number of CRC bits per frame, FSCH\_CRC\_LEN\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>], according to Table 3.7.3.3.2.37-2 using FOR\_SCH\_NUM\_BITS\_IDX<sub>r</sub> as the index to the table.
      - o If USE\_FLEX\_NUM\_BITS<sub>s</sub> is equal to '1' and FSCH\_NBIT\_TABLE\_ID<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>] is not equal to '0000', then the mobile station shall set the number of CRC bits per frame, FSCH\_CRC\_LEN\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>], using Table 3.7.5.20-1 and CRC\_LEN\_IDX<sub>s</sub>[FSCH\_NBIT\_TABLE\_ID<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>]][FOR\_SCH\_NUM\_BITS\_IDX<sub>r</sub>] as the index to the table.
    - The mobile station shall also set the number of information bits per frame corresponding to SCCL\_INDEX<sub>r</sub>, N\_FSCH\_BITS\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>], to NUM\_BITS<sub>s</sub>[FSCH\_NBIT\_TABLE\_ID<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>]][FOR\_SCH\_NUM\_BITS\_IDX<sub>r</sub>].
    - + If FSCH\_VAR\_TABLE\_ID<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>] is not equal to '000', then:

- o The mobile station shall set  $N_{FSCH\_BITS\_IDX\_SET_s}[FOR\_SCH\_ID_r]$ , the set of indices to the number of information bits per frame as follows:
  - ◊ If  $FOR\_SCH\_NUM\_BITS\_IDX_r$  is equal to '0000', then  $N_{FSCH\_BITS\_IDX\_SET_s}[FOR\_SCH\_ID_r] = \{ FOR\_SCH\_NUM\_BITS\_IDX_r \}$ ,
  - ◊ otherwise the mobile station shall set (initialize)  $N_{FSCH\_BITS\_IDX\_SET_s}[FOR\_SCH\_ID_r] = \{FOR\_SCH\_NUM\_BITS\_IDX_r\}$  and for  $i=1, \dots, FOR\_SCH\_NUM\_BITS\_IDX_r$  the mobile station shall add  $FOR\_SCH\_NUM\_BITS\_IDX_r - VAR\_FSCH\_RATE\_OFFSET_s[FOR\_SCH\_ID_r][FOR\_SCH\_NUM\_BITS\_IDX_r][i]$  to the set specified by  $N_{FSCH\_BITS\_IDX\_SET_s}[FOR\_SCH\_ID_r]$
- o If  $USE\_FLEX\_NUM\_BITS_s$  is equal to '0' or if  $USE\_FLEX\_NUM\_BITS_s$  is equal to '1' and  $FSCH\_NBIT\_TABLE\_ID_s[FOR\_SCH\_ID_r]$  is equal to '0000', then the mobile station shall set  $N_{FSCH\_BITS\_SET_s}[FOR\_SCH\_ID_r][SCCL\_INDEX_r]$ , the set of number of information bits per frame as follows.  
The  $i^{\text{th}}$  member of the set  $N_{FSCH\_BITS\_SET_s}[FOR\_SCH\_ID_r][SCCL\_INDEX_r]$  is obtained using Table 3.7.3.3.2.37-2 and the  $i^{\text{th}}$  member of the set  $N_{FSCH\_BITS\_IDX\_SET_s}[FOR\_SCH\_ID_r]$  as the index to the table.
- o If  $USE\_FLEX\_NUM\_BITS_s$  is equal to '1' and  $FSCH\_NBIT\_TABLE\_ID_s[FOR\_SCH\_ID_r]$  is not equal to '0000', then
  - ◊ the mobile station shall set  $N_{FSCH\_BITS\_SET_s}[FOR\_SCH\_ID_r][SCCL\_INDEX_r]$ , the set of number of information bits per frame as follows.  
The  $i^{\text{th}}$  member of the set  $N_{FSCH\_BITS\_SET_s}[FOR\_SCH\_ID_r][SCCL\_INDEX_r]$  is equal to  $NUM\_BITS_s[FSCH\_NBIT\_TABLE\_ID_s[FOR\_SCH\_ID_r]] [N_{FSCH\_BITS\_IDX\_SET_s}[FOR\_SCH\_ID_r][i]]$ , where  $N_{FSCH\_BITS\_IDX\_SET_s}[FOR\_SCH\_ID_r][i]$  denotes the  $i^{\text{th}}$  member of the set  $N_{FSCH\_BITS\_IDX\_SET_s}[FOR\_SCH\_ID_r]$  and,

1           ◊ the mobile station shall set  
 2            FSCH\_CRC\_LEN\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>], the set  
 3            of number CRC bits per frame as follows.  
 4            The  $i^{\text{th}}$  member of the set  
 5            FSCH\_CRC\_LEN\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>] using  
 6            Table 3.7.5.20-1 and  
 7            CRC\_LEN\_IDX<sub>s</sub>[FSCH\_NBIT\_TABLE\_ID<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>]][N\_FS  
 8            CH\_BITS\_IDX\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][i]] as the index to the  
 9            table, where N\_FSCH\_BITS\_IDX\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][i]  
 10          denotes the  $t^{\text{th}}$  member of the set  
 11          N\_FSCH\_BITS\_IDX\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>].

- 12        – For the  $i^{\text{th}}$  record of the Forward Supplemental Channel Active Set (for all  
 13        values of  $i$  between 1 and NUM\_SUP\_SHO+1) specified in this message,  
 14        the mobile station shall store the following three entries corresponding to  
 15        the SCCL\_INDEX<sub>r</sub> as follows:
  - 16           + PILOT\_PN<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>][i] = PILOT\_PN<sub>r</sub>,
  - 17           + Set the ADD\_PILOT\_REC\_INCL field to ADD\_PILOT\_REC\_INCL<sub>r</sub>. If  
 18            ADD\_PILOT\_REC\_INCL<sub>r</sub> equals ‘1’, the mobile station shall store the  
 19            following:
    - 20            o Set the PILOT\_REC\_TYPE field of PILOT\_REC to  
 21              PILOT\_REC\_TYPE<sub>r</sub>.
    - 22            o If PILOT\_REC\_TYPE<sub>r</sub> equals ‘000’, the mobile station shall set the  
 23              TD\_POWER\_LEVEL field of PILOT\_REC to TD\_POWER\_LEVEL<sub>r</sub>  
 24              and set the TD\_MODE field of PILOT\_REC to TD\_MODE<sub>r</sub>.
    - 25            o If PILOT\_REC\_TYPE<sub>r</sub> is equal to ‘001’, the mobile station shall:
      - 26              – Set the AUX\_PILOT\_QOF field of PILOT\_REC to QOF<sub>r</sub>.
      - 27              – Set the AUX\_PILOT\_WALSH\_CODE field of PILOT\_REC to  
 28                AUX\_PILOT\_WALSH<sub>r</sub> with the Walsh Code length specified by  
 29                WALSH\_LENGTH<sub>r</sub>.
    - 30            o If NGHBR\_PILOT\_REC\_TYPE<sub>r</sub> is equal to ‘010’, the mobile station  
 31            shall:
      - 32              – Set the AUX\_PILOT\_TD\_QOF field of PILOT\_REC to QOF<sub>r</sub>.
      - 33              – Set the AUX\_PILOT\_WALSH\_CODE field of PILOT\_REC to  
 34                AUX\_WALSH<sub>r</sub> with the Walsh Code length specified by  
 35                WALSH\_LENGTH<sub>r</sub>.
      - 36              – Set the AUX\_TD\_POWER\_LEVEL field of PILOT\_REC to  
 37                AUX\_TD\_POWER\_LEVEL<sub>r</sub>.
      - 38              – Set the TD\_MODE field of NGHBR\_PILOT\_REC to TD\_MODE<sub>r</sub>.
    - 39            o If PILOT\_REC\_TYPE<sub>r</sub> is equal to ‘011’, the mobile station shall:

- Set the SR3\_PRIMARY\_PILOT field of PILOT\_REC to SR3\_PRIMARY\_PILOT<sub>r</sub>.
- Set the SR3\_PILOT\_POWER1 field of PILOT\_REC to SR3\_PILOT\_POWER1<sub>r</sub>.
- Set the SR3\_PILOT\_POWER2 field of PILOT\_REC to SR3\_PILOT\_POWER2<sub>r</sub>.
- o If PILOT\_REC\_TYPE<sub>r</sub> is equal to '100', the mobile station shall:
  - Set the SR3\_PRIMARY\_PILOT field of PILOT\_REC to SR3\_PRIMARY\_PILOT<sub>r</sub>.
  - Set the SR3\_PILOT\_POWER1 field of PILOT\_REC to SR3\_PILOT\_POWER1<sub>r</sub>.
  - Set the SR3\_PILOT\_POWER2 field of PILOT\_REC to SR3\_PILOT\_POWER2<sub>r</sub>.
  - Set the AUX\_PILOT\_QOF field of PILOT\_REC to QOF<sub>r</sub>.
  - Set the AUX\_PILOT\_WALSH\_CODE field of PILOT\_REC to AUX\_PILOT\_WALSH<sub>r</sub> with the Walsh Code length specified by WALSH\_LENGTH<sub>r</sub>.
  - If ADD\_INFO\_INCL1<sub>r</sub> is equal to '1', set the AUX\_PILOT\_QOF1 field of PILOT\_REC to QOF1<sub>r</sub> and set the AUX\_PILOT\_WALSH\_CODE1 field of PILOT\_REC to AUX\_PILOT\_WALSH1<sub>r</sub> with the Walsh Code length specified by WALSH\_LENGTH1<sub>r</sub>.
  - Otherwise, set the AUX\_PILOT\_QOF1 field of PILOT\_REC to QOF<sub>r</sub> and set the AUX\_PILOT\_WALSH\_CODE1 field of PILOT\_REC to AUX\_PILOT\_WALSH<sub>r</sub> with the Walsh Code length specified by WALSH\_LENGTH<sub>r</sub>.
  - If ADD\_INFO\_INCL2<sub>r</sub> is equal to '1', set the AUX\_PILOT\_QOF2 field of PILOT\_REC to QOF2<sub>r</sub> and set the AUX\_PILOT\_WALSH\_CODE2 field of PILOT\_REC to AUX\_PILOT\_WALSH2<sub>r</sub> with the Walsh Code length specified by WALSH\_LENGTH2<sub>r</sub>.
  - Otherwise, set the AUX\_PILOT\_QOF2 field of PILOT\_REC to QOF<sub>r</sub> and set the AUX\_PILOT\_WALSH\_CODE2 field of PILOT\_REC to AUX\_PILOT\_WALSH<sub>r</sub> with the Walsh Code length specified by WALSH\_LENGTH<sub>r</sub>.
- + QOF\_MASK\_ID\_SCH<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>][i] = QOF\_MASK\_ID\_SCH<sub>r</sub>,
- + FOR\_SCH\_CC\_INDEX<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>][i]= CODE\_CHAN\_SCH<sub>r</sub>.

- 1     • The mobile station may soft-combine the Forward Supplemental Channel  
2       frames received on the Forward Supplemental Channels in the same Forward  
3       Supplemental Channel Active Set.
- 4     • If the mobile station supports any Radio Configuration greater than 2, the  
5       mobile station shall perform the following:  
6       – If FPC\_INCL<sub>r</sub> is equal to '1', the mobile station shall:  
7           + Set FPC\_MODE\_SCH<sub>s</sub> to FPC\_MODE\_SCH<sub>r</sub>.  
8           – If FPC\_INCL is equal to '1' and FPC\_MODE is equal to '001', '010', '101',  
9            or '110', the mobile station shall:  
10           + Set FPC\_SEC\_CHAN<sub>s</sub> to FPC\_SEC\_CHAN<sub>r</sub>.  
11           – If NUM\_SUP<sub>r</sub> is included and not equal to '00', for each Supplemental  
12        Channel included in the message, the mobile station shall:  
13           + Set SCH\_ID<sub>s</sub> to SCH\_ID<sub>r</sub>.  
14           + Set FPC\_SCH\_FER<sub>s</sub> to FPC\_SCH\_FER<sub>r</sub>.  
15           + Set FPC\_SCH\_INIT\_SETPT<sub>s</sub> as follows:  
16             o If FPC\_SCH\_INIT\_SETPT\_OP<sub>r</sub> is set to '0', set  
17               FPC\_SCH\_INIT\_SETPT<sub>s</sub> to FPC\_SCH\_INIT\_SETPT<sub>r</sub>.  
18             o If FPC\_SCH\_INIT\_SETPT\_OP<sub>r</sub> is set to '1':  
19               ◊ If FPC\_PRI\_CHAN<sub>r</sub> is equal to '0', set FPC\_SCH\_INIT\_SETPT<sub>s</sub>  
20                to (FPC\_FCH\_CURR\_SETPT<sub>s</sub> + FPC\_SCH\_INIT\_SETPT<sub>r</sub>).  
21               ◊ Otherwise, set FPC\_SCH\_INIT\_SETPT<sub>s</sub> to  
22                (FPC\_DCCH\_CURR\_SETPT<sub>s</sub> + FPC\_SCH\_INIT\_SETPT<sub>r</sub>).  
23           + Set FPC\_SCH\_MIN\_SETPT<sub>s</sub> to FPC\_SCH\_MIN\_SETPT<sub>r</sub>.  
24           + Set FPC\_SCH\_MAX\_SETPT<sub>s</sub> to FPC\_SCH\_MAX\_SETPT<sub>r</sub>.  
25       – If FPC\_THRESH\_SCH\_INCL is included and equal to '1', the mobile  
26        station shall set FPC\_SETPT\_THRESH\_SCH<sub>s</sub> to SETPT\_THRESH\_SCH<sub>r</sub>.  
27     • If RPC\_INCL is equal to '1', the mobile station shall set RLGAIN\_SCH\_PILOT<sub>s</sub>  
28        to RLGAIN\_SCH\_PILOT<sub>r</sub>.  
29     • If NUM\_3X\_CFG<sub>r</sub> is not equal to '00', the mobile station shall store the  
30       Forward 3X Supplemental Channel Configuration associated with the  
31       identification of Forward Supplemental Channel (NUM\_3X\_CFG<sub>s</sub> =  
32       NUM\_3X\_CFG<sub>r</sub>).  
33     • For each 3X SCH record included in this message, the mobile station shall  
34       update the Forward Supplemental Channel Code list associated with the  
35       FOR\_SCH\_ID<sub>r</sub> as follows:

- 1           – For the  $i^{\text{th}}$  record of the Forward Supplemental Channel Active Set (for all  
 2           values of  $i$  between 1 and  $\text{NUM\_SUP\_SHO}+1$ ) specified in this message,  
 3           the mobile station shall store the following three entries corresponding to  
 4           the  $\text{SCCL\_INDEX}_r$  as follows:
- 5            + If  $3X_{\text{SCH\_LOW}}_{\text{INCL}_r}$  equals ‘1’, set  
 6               $\text{QOF\_MASK\_ID\_SCH\_LOW}[\text{FOR\_SCH\_ID}_r][\text{SCCL\_INDEX}_r][i]$  to  
 7               $\text{QOF\_MASK\_ID\_SCH\_LOW}_r$  and  
 8               $\text{FOR\_SCH\_CC\_INDEX\_LOW}[\text{FOR\_SCH\_ID}_r][\text{SCCL\_INDEX}_r][i]$  to  
 9               $\text{CODE\_CHAN\_SCH\_LOW}_r$ . Otherwise, set  
 10              $\text{QOF\_MASK\_ID\_SCH\_LOW}[\text{FOR\_SCH\_ID}_r][\text{SCCL\_INDEX}_r][i]$  to  
 11              $\text{QOF\_MASK\_ID\_SCH}[\text{FOR\_SCH\_ID}_r][\text{SCCL\_INDEX}_r][i]$  and  
 12              $\text{FOR\_SCH\_CC\_INDEX\_LOW}[\text{FOR\_SCH\_ID}_r][\text{SCCL\_INDEX}_r][i]$  to  
 13              $\text{CODE\_CHAN\_SCH}[\text{FOR\_SCH\_ID}_r][\text{SCCL\_INDEX}_r][i]$ .
- 14            + If  $3X_{\text{SCH\_HIGH}}_{\text{INCL}_r}$  equals ‘1’, set  
 15               $\text{QOF\_MASK\_ID\_SCH\_HIGH}[\text{FOR\_SCH\_ID}_r][\text{SCCL\_INDEX}_r][i]$  to  
 16               $\text{QOF\_MASK\_ID\_SCH\_HIGH}_r$  and  
 17               $\text{FOR\_SCH\_CC\_INDEX\_HIGH}[\text{FOR\_SCH\_ID}_r][\text{SCCL\_INDEX}_r][i]$  to  
 18               $\text{CODE\_CHAN\_SCH\_HIGH}_r$ . Otherwise, set  
 19               $\text{QOF\_MASK\_ID\_SCH\_HIGH}[\text{FOR\_SCH\_ID}_r][\text{SCCL\_INDEX}_r][i]$  to  
 20               $\text{QOF\_MASK\_ID\_SCH}[\text{FOR\_SCH\_ID}_r][\text{SCCL\_INDEX}_r][i]$  and  
 21               $\text{FOR\_SCH\_CC\_INDEX\_HIGH}[\text{FOR\_SCH\_ID}_r][\text{SCCL\_INDEX}_r][i]$  to  
 22               $\text{CODE\_CHAN\_SCH}[\text{FOR\_SCH\_ID}_r][\text{SCCL\_INDEX}_r][i]$ .
- 23           • If  $\text{PILOT\_GATING\_USE\_RATE}$  is set to ‘1’ and if  $\text{NUM\_REV\_SCH}_r$  or  
 24            $\text{NUM\_FOR\_SCH}_r$  is not equal to ‘00’, the mobile station shall perform the  
 25           following:
- 26            – The mobile station shall set  $\text{PILOT\_GATING\_USE\_RATE}$  to ‘0’ and shall  
 27           start the continuous reverse pilot at the specified action time.
- 28            – If the Fundamental Channel was previously established prior to  
 29           transitioning to the *Control Hold Mode*, the mobile station shall start  
 30           processing F-FCH and start transmitting on R-FCH at the action time of  
 31           the message. The mobile station shall establish the Fundamental  
 32           Channel with the same configuration as previously used.

- 33          14. *Forward Supplemental Channel Assignment Mini Message*: The mobile station  
 34          shall process this message as follows:

35          The mobile station shall send a *Mobile Station Reject Order* with the  $\text{ORDQ}$  field  
 36          set to ‘00000111’ (message can not be handled by the current mobile station  
 37          configuration), if any of the mobile station’s forward supplemental channel  
 38          configuration parameters for the corresponding Supplemental Channel  
 39          ( $\text{FOR\_SCH\_MUX}_s$ ,  $\text{FOR\_SCH\_RC}_s$ ,  $\text{FOR\_SCH\_CODING}_s$ ,  
 40           $\text{FOR\_SCH\_FRAME\_LENGTH}_s$ ,  $\text{QOF\_ID}_s$  for the corresponding  $\text{SCCL\_INDEX}_s$ , or  
 41           $\text{FOR\_SCH\_CC\_INDEX}_s$  for the corresponding  $\text{SCCL\_INDEX}_s$ ) is NULL.

42          Otherwise, the mobile station shall store the following information and process

1 the Forward Supplemental Burst as specified in 2.6.6.2.5.1.1:

- 2 • Set FOR\_SCH\_START\_TIME\_INCL<sub>S</sub>[FOR\_SCH\_ID<sub>r</sub>] to ‘1’
- 3 • FOR\_SCH\_START\_TIME<sub>S</sub>[FOR\_SCH\_ID<sub>r</sub>] = FOR\_SCH\_START\_TIME<sub>r</sub>
- 4 • FOR\_SCH\_DURATION<sub>S</sub>[FOR\_SCH\_ID<sub>r</sub>] = FOR\_SCH\_DURATION<sub>r</sub>
- 5 • SCCL\_INDEX<sub>S</sub>[FOR\_SCH\_ID<sub>r</sub>] = SCCL\_INDEX<sub>r</sub>
- 6 • If PILOT\_GATING\_USE\_RATE is set to ‘1’, the mobile station shall perform  
7 the following:
  - 8 – The mobile station shall set PILOT\_GATING\_USE\_RATE to ‘0’ and shall  
9 start the continuous reverse pilot at the specified action time.
  - 10 – If the Fundamental Channel was previously established prior to  
11 transitioning to the *Control Hold Mode*, the mobile station shall start  
12 processing F-FCH and start transmitting on R-FCH at the action time of  
13 the message. The mobile station shall establish the Fundamental  
14 Channel with the same configuration as previously used.

15 15. *Reverse Supplemental Channel Assignment Mini Message*: The mobile station shall  
16 process this message as follows:

17 The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field  
18 set to ‘00000111’ (message can not be handled by the current mobile station  
19 configuration), if any of the mobile station’s reverse supplemental channel  
20 configuration parameters for the corresponding Supplemental Channel  
21 (~~REV\_SCH\_MUX<sub>S</sub>, REV\_SCH\_RC<sub>S</sub>, REV\_SCH\_CODING<sub>S</sub>, or~~  
22 ~~REV\_SCH\_FRAME\_LENGTH<sub>S</sub>~~) is NULL.

23 If IGNORE\_ESCAM<sub>S</sub> is equal to ‘1’, the mobile station shall not process the  
24 Reverse Supplemental Channel assignment information in this message.

25 Otherwise, the mobile station shall store the following information and process  
26 the Reverse Supplemental Burst as specified in 2.6.6.2.5.1.2:

- 27 • Set REV\_SCH\_START\_TIME\_INCL<sub>S</sub>[REV\_SCH\_ID<sub>r</sub>] to ‘1’
- 28 • REV\_SCH\_START\_TIME<sub>S</sub>[REV\_SCH\_ID<sub>r</sub>] = REV\_SCH\_START\_TIME<sub>r</sub>
- 29 • REV\_SCH\_DURATION<sub>S</sub>[REV\_SCH\_ID<sub>r</sub>] = REV\_SCH\_DURATION<sub>r</sub>
- 30 • REV\_SCH\_NUM\_BITS\_IDX<sub>S</sub>[REV\_SCH\_ID<sub>r</sub>] = REV\_SCH\_NUM\_BITS\_IDX<sub>r</sub>
- 31 • If PILOT\_GATING\_USE\_RATE is set to ‘1’, the mobile station shall perform  
32 the following:
  - 33 – The mobile station shall set PILOT\_GATING\_USE\_RATE to ‘0’ and shall  
34 start the continuous reverse pilot at the specified action time.

- 1           – If the Fundamental Channel was previously established prior to  
 2           transitioning to the *Control Hold Mode*, the mobile station shall start  
 3           processing F-FCH and start transmitting on R-FCH at the action time of  
 4           the message. The mobile station shall establish the Fundamental  
 5           Channel with the same configuration as previously used.

6        2.6.6.2.5.1.1 Processing of the Forward Supplemental Burst Assignment

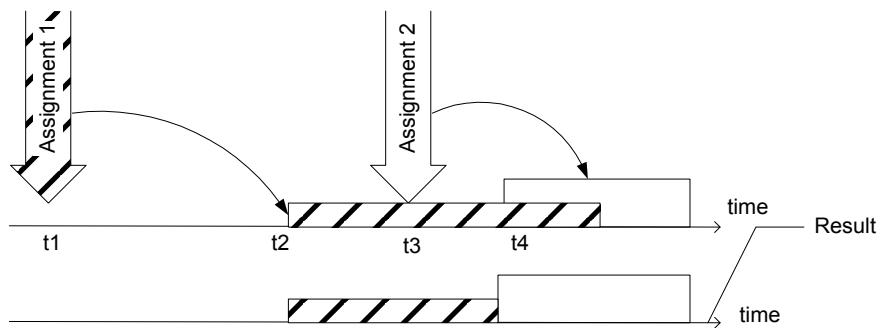
7        A Forward Supplemental Assignment specifies the explicit start time identified by  
 8        FOR\_SCH\_START\_TIME or the implicit start time (if FOR\_SCH\_START\_TIME\_INCL is set to  
 9        '0'), FOR\_SCH\_DURATION, and SCCL\_INDEX of a forward burst assignment. The time  
 10      interval of duration is specified by FOR\_SCH\_DURATION (see Table 3.7.3.3.2.37-3) and  
 11      starts at the time specified by the explicit start time FOR\_SCH\_START\_TIME or the implicit  
 12      start time (if FOR\_SCH\_START\_TIME\_INCL is set to '0'). This time interval for a Forward  
 13      Supplemental Assignment is called the Forward Supplemental Assignment Interval. A  
 14      value of FOR\_SCH\_DURATION equal to '1111' indicates infinite duration. The variable  
 15      SCCL\_INDEX<sub>S</sub>[FOR\_SCH\_ID] specifies the rate, QOF index and the Active Set for the  
 16      Forward Supplemental Channel identified by FOR\_SCH\_ID for a given Forward  
 17      Supplemental Assignment. A value of FOR\_SCH\_DURATION equal to '0000' indicates that  
 18      the mobile station should stop processing the forward Supplemental Channels at the  
 19      explicit start time specified by FOR\_SCH\_START\_TIME or the implicit start time (if  
 20      FOR\_SCH\_START\_TIME\_INCL is set to '0'). The implicit start time is the time occurring no  
 21      later than the first 80 ms boundary (relative to System Time) which occurs at least 80 ms  
 22      after the end of the frame containing the last bit of the *Extended Supplemental Channel  
 23      Assignment Message*.

24      For each Forward Supplemental Assignment the mobile station shall determine the start  
 25      time for processing forward supplemental channel as the time for which the following  
 26      equation holds:

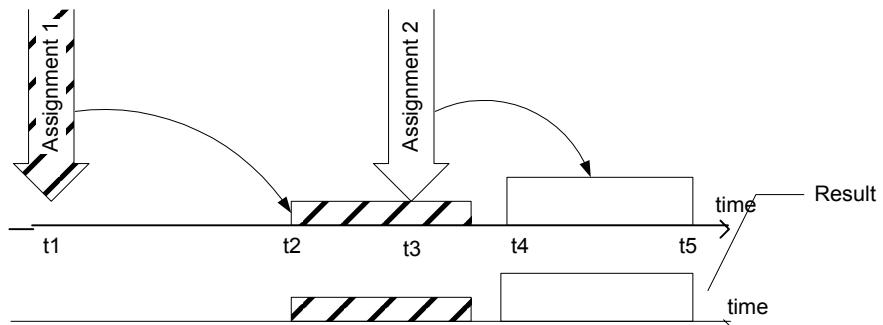
$$(\lfloor t / (\text{START\_TIME\_UNIT}_S + 1) \rfloor - \text{FOR\_SCH\_START\_TIME}_r) \bmod 32 = 0,$$

28      where t is the System Time in units of 20 ms.

29      Figure 2.6.6.2.5.1.1-1 illustrates the scenario in which a second Forward Supplemental  
 30      Assignment is received while the mobile station is processing the forward supplemental  
 31      channel according to a previously received assignment. Two cases are displayed in Figure  
 32      2.6.6.2.5.1.1-1: Case a) where the first assignment extends beyond the start time of the  
 33      second assignment and Case b) where the first assignment ends before the second one  
 34      starts.



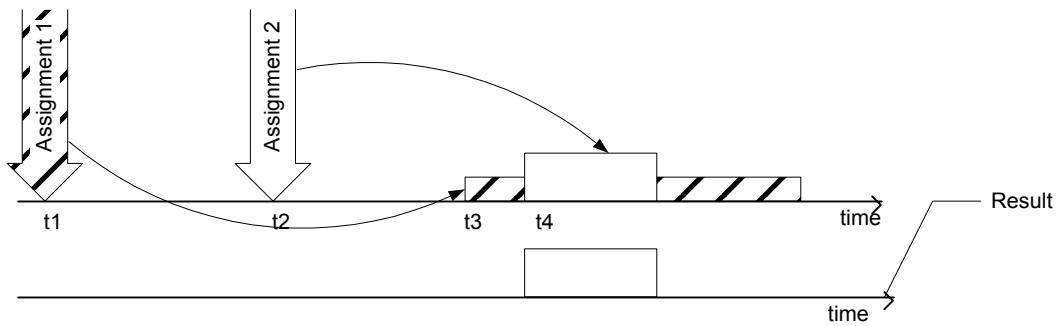
a) "Assignment 1" extends beyond the start time for "Assignment 2"



b) "Assignment 1" ends prior to the start time of "Assignment 2"

**Figure 2.6.6.2.5.1.1-1. New Supplemental Channel Assignment Received while a Previous Supplemental Channel Assignment is in Progress**

Figure 2.6.6.2.5.1.1-2 shows an example scenario in which the mobile station receives a second Forward Supplemental Assignment before it starts processing the supplemental channel according to the first assignment. In this case, the second assignment simply replaces the first assignment.



**Figure 2.6.6.2.5.1.1-2. New Supplemental Channel Assignment Received before a Previous Supplemental Channel Assignment starts**

The mobile station shall set  $FPC\_MODE_s$  to  $FPC\_MODE\_SCH_s$  at the  $FOR\_SCH\_START\_TIME_s$  of the forward Supplemental Channel assignment. The mobile station shall set  $FPC\_MODE_s$  to  $FPC\_MODE\_NO\_SCH_s$  at the end of the forward Supplemental Channel assignment.

- 1 For each Forward Supplemental Channel assignment corresponding to each Forward  
 2 Supplemental Channel (identified by FOR\_SCH\_ID), the mobile station should perform the  
 3 following:
- 4     • If FOR\_SCH\_DURATION<sub>s</sub>[FOR\_SCH\_ID] is not equal to '0000', then
- 5         – If the mobile station is currently processing the Forward Supplemental Channel  
 6             identified by FOR\_SCH\_ID, then the mobile station should continue processing  
 7             the Forward Supplemental Channel identified by FOR\_SCH\_ID according to the  
 8             Forward Supplemental Assignment previously received for the Forward  
 9             Supplemental Channel identified by FOR\_SCH\_ID up to the time specified by the  
 10            FOR\_SCH\_START\_TIME<sub>s</sub>[FOR\_SCH\_ID] (i.e., the mobile station should stop  
 11            processing the forward supplemental channel identified by FOR\_SCH\_ID at  
 12            either the time specified by [FOR\\_SCH\\_START\\_TIME<sub>s</sub>\[FOR\\_SCH\\_ID\]](#), the start  
 13            time of the new assignment, or at the time the previously received assignment  
 14            ends, whichever time is earlier).
- 15             At the time specified by FOR\_SCH\_START\_TIME<sub>s</sub>[FOR\_SCH\_ID], the mobile  
 16             station should start processing the Forward Supplemental Channel identified by  
 17             FOR\_SCH\_ID for a duration of time specified by  
 18             FOR\_SCH\_DURATION[FOR\_SCH\_ID]<sub>s</sub> with the QOF index, the Supplemental  
 19             Channel Active Set indexed by SCCL\_INDEX<sub>s</sub>[FOR\_SCH\_ID], and number of  
 20             information bits per frame (or set of number of bits per frame if  
 21             FSCH\_VAR\_TABLE\_ID<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>] is not equal to '000' specified by  
 22             N\_FSCH\_BITS\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>].
- 23             If the set of number of bits per frame,  
 24             N\_FSCH\_BITS\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>], has more than one member  
 25             and F\_INC\_RATE\_ALLOWED<sub>s</sub> is equal to '0', then the following rule applies for  
 26             the duration of this assignment:
- 27                 + Once the mobile station determines the forward Supplemental Channel  
 28                 number of bits per frame, the number of bits per frame in the subsequent  
 29                 Forward Supplemental Channel frames may be any member of the set  
 30                 N\_FSCH\_BITS\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>] which is smaller or equal  
 31                 to the number of bits in the current frame.
- 32                 – Otherwise, if the mobile station is not currently processing the Forward  
 33                 Supplemental Channel identified by FOR\_SCH\_ID, then at the time specified by  
 34                 FOR\_SCH\_START\_TIME<sub>s</sub>[FOR\_SCH\_ID], the mobile station should start  
 35                 processing the Forward Supplemental Channel identified by FOR\_SCH\_ID for a  
 36                 duration of time specified by FOR\_SCH\_DURATION<sub>s</sub>[FOR\_SCH\_ID] with the QOF  
 37                 index, the Supplemental Channel Active Set indexed by  
 38                 SCCL\_INDEX<sub>s</sub>[FOR\_SCH\_ID], and number of bits per frame (or set of number of  
 39                 information bits per frame if FSCH\_VAR\_TABLE\_ID<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>] is not equal  
 40                 to '000' specified by N\_FSCH\_BITS\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>][SCCL\_INDEX<sub>r</sub>].

If the set of number of bits per frame,  $N_{FSCH\_BITS\_SETs}[FOR\_SCH\_ID_r][SCCL\_INDEX_r]$  and  $F\_INC\_RATE\_ALLOWED_s$  is equal to '0', has more than one member, then the following rule applies for the duration of this assignment:

- + Once the mobile station determines the forward Supplemental Channel number of bits per frame, the number of bits per frame in the subsequent Forward Supplemental Channel frames may be any member of the set  $N_{FSCH\_BITS\_SETs}[FOR\_SCH\_ID_r][SCCL\_INDEX_r]$  which is smaller or equal to the number of bits in the current frame.
- If  $FOR\_SCH\_DURATION_s[FOR\_SCH\_ID]$  is equal to '0000', the mobile station should perform the following:
  - If the mobile station is currently processing the Forward Supplemental Channel identified by FOR\_SCH\_ID, then the mobile station should continue processing the Forward Supplemental Channel identified by FOR\_SCH\_ID according to the Forward Supplemental Assignment previously received for the Forward Supplemental Channel identified by FOR\_SCH\_ID up to the time specified by the implicit start time (FOR\_SCH\_START\_TIME\_INCL\_s is set to '0') or the explicit start time (FOR\_SCH\_START\_TIME\_INCL\_s is set to '1') (i.e., the mobile station should stop processing the forward supplemental channel identified by FOR\_SCH\_ID at the time specified by the implicit start time or the explicit start time, or at the time the previously received assignment ends, whichever time is earlier). The mobile station should cancel the pending Forward Supplemental Channel assignment if any.
  - + — If  $FOR\_SCH\_START\_TIME\_INCL_s$  is equal to '1', the mobile station should stop processing the Forward Supplemental Channel identified by  $FOR\_SCH\_ID$  at the time specified by  $FOR\_SCH\_START\_TIME_s[FOR\_SCH\_ID]$ .
  - + — If  $FOR\_SCH\_START\_TIME\_INCL_s$  is equal to '0', the mobile station should stop processing the Forward Supplemental Channel identified by  $FOR\_SCH\_ID$  no later than the first 80 ms boundary (relative to System Time) occurring at least 80 ms after the end of the frame containing the last bit of the message.
  - Otherwise, if the mobile station is not currently processing the Forward Supplemental Channel identified by FOR\_SCH\_ID, the mobile station should cancel the pending Forward Supplemental Channel assignment if any.
  - If the PILOT\_GATING\_USE\_RATE to equal to '0', the mobile station shall start the continuous reverse pilot at the specified action time.

### 2.6.6.2.5.1.2 Processing of the Reverse Supplemental Burst Assignment

A Reverse Supplemental Assignment specifies the explicit start time identified by  $REV\_SCH\_START\_TIME$  or the implicit start time (if  $REV\_SCH\_START\_TIME\_INCL$  is set to '0'),  $REV\_SCH\_DURATION$ , and  $REV\_SCH\_NUM\_BITS\_IDX$  of a reverse burst assignment.

1 The time interval of duration is specified by REV\_SCH\_DURATION (see Table 3.7.3.3.2.37-3)  
 2 and starts at the time specified by the explicit start time REV\_SCH\_START\_TIME or the  
 3 implicit start time (if REV\_SCH\_START\_TIME\_INCL is set to '0'). This time interval for a  
 4 Reverse Supplemental Assignment is called the reverse supplemental assignment interval.  
 5 A value of REV\_SCH\_DURATION equal to '1111' indicates infinite duration. A value of  
 6 REV\_SCH\_DURATION equal to '0000' indicates that the mobile station should stop  
 7 transmitting the reverse Supplemental Channels at the explicit start time specified by  
 8 REV\_SCH\_START\_TIME or the implicit start time (if REV\_SCH\_START\_TIME\_INCL is set to  
 9 '0'). The implicit start time is the time occurring no later than the first 80 ms boundary  
 10 (relative to System Time) which occurs at least 80 ms after the end of the frame containing  
 11 the last bit of the *Extended Supplemental Channel Assignment Message*.

12 For each Reverse Supplemental Assignment the mobile station shall determine the start  
 13 time for processing reverse supplemental channel as the time for which the following  
 14 equation holds:

$$\lfloor t / (\text{START\_TIME\_UNIT}_S + 1) \rfloor - \text{REV\_SCH\_START\_TIME}_R \bmod 32 = 0,$$

16 where  $t$  is the System Time in units of 20 ms.

17 Figure 2.6.6.2.5.1.1-1 illustrates the scenario in which a second Reverse Supplemental  
 18 Assignment is received while the mobile station is transmitting on the reverse supplemental  
 19 channel according to a previously received assignment. Two cases are displayed in Figure  
 20 2.6.6.2.5.1.1-1: Case a) where the first assignment extends beyond the start time of the  
 21 second assignment and Case b) where the first assignment ends before the second one  
 22 starts.

23 Figure 2.6.6.2.5.1.1-2 shows an example scenario in which the mobile station receives a  
 24 second Reverse Supplemental Assignment before it starts transmitting on the supplemental  
 25 channel according to the first assignment. In this case, the second assignment simply  
 26 replaces the first assignment.

27 For each Reverse Supplemental Channel assignment corresponding to each Reverse  
 28 Supplemental Channel (identified by REV\_SCH\_ID), the mobile station shall perform the  
 29 following:

- 30 • The mobile station shall determine,  $N_{RSCH\_BITS}_S[REV\_SCH\_ID_R]$ , the number of  
 31 information bits per Reverse Supplemental Channel frame identified by  
 32 REV\_SCH\_ID according to the following rules:
  - 33 – If  $RSCH\_VAR\_TABLE\_IDs[REV\_SCH\_ID_R]$  is equal to '000', then:
    - 34 + If  $USE\_FLEX\_NUM\_BITS_S$  is equal to '0' or if  $USE\_FLEX\_NUM\_BITS_S$  is equal  
 35 to '1' and  $RSCH\_NBIT\_TABLE\_IDs[REV\_SCH\_ID_R]$  is equal to '0000', then the  
 36 mobile station shall set the number of information bits per frame,  
 37  $N_{RSCH\_BITS\_SET}_S[REV\_SCH\_ID_R]$  and number of CRC bits per frame,  
 38  $RSCH\_CRC\_LEN\_SET}_S[REV\_SCH\_ID_R]$ , according to Table 3.7.3.3.2.37-[24](#)  
 39 using  $REV\_SCH\_NUM\_BITS\_IDX_R$  as the index to the table.

- + If USE\_FLEX\_NUM\_BITS<sub>s</sub> is equal to '1' and RSCH\_NBIT\_TABLE\_ID<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>] is not equal to '0000', then the mobile station shall set the number of CRC bits per frame, RSCH\_CRC\_LEN\_SET<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>], according to Table 3.7.5.20-1 using CRC\_LEN\_IDX<sub>s</sub>[RSCH\_NBIT\_TABLE\_ID<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>]][REV\_SCH\_NUM\_BIT S\_IDX<sub>r</sub>] as the index to the table. The mobile station shall also set the number of information bits per frame, N\_SCH\_BITS\_SET<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>], to NUM\_BITS<sub>s</sub>[RSCH\_NBIT\_TABLE\_ID<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>]] [REV\_SCH\_NUM\_BITS\_IDX<sub>r</sub>].
- If RSCH\_VAR\_TABLE\_ID<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>] is not equal to '000', then:
  - + The mobile station shall set N\_RSCH\_BITS\_IDX\_SET<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>], the set of indices to the number of information bits per frame as follows:
    - o If REV\_SCH\_NUM\_BITS\_IDX<sub>r</sub> is equal to '0000', then N\_RSCH\_BITS\_IDX\_SET<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>] = {REV\_SCH\_NUM\_BITS\_IDX<sub>r</sub>},
    - o otherwise, the mobile station shall set (initialize) N\_RSCH\_BITS\_IDX\_SET<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>] = { REV\_SCH\_NUM\_BITS\_IDX<sub>r</sub> }, and for i=1, ..., REV\_SCH\_NUM\_BITS\_IDX<sub>r</sub> the mobile station shall add REV\_SCH\_NUM\_BITS\_IDX<sub>r</sub> - VAR\_RSCH\_RATE\_OFFSET<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>][REV\_SCH\_NUM\_BITS\_IDX<sub>r</sub>][i] to the set specified by N\_RSCH\_BITS\_IDX\_SET<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>]
  - + If USE\_FLEX\_NUM\_BITS<sub>s</sub> is equal to '0' or if USE\_FLEX\_NUM\_BITS<sub>s</sub> is equal to '1' and RSCH\_NBIT\_TABLE\_ID<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>] is equal to '0000', then the mobile station shall determine N\_RSCH\_BITS\_SET<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>], the set of number of information bits per frame as follows. The *i*<sup>th</sup> member of the set N\_RSCH\_BITS\_SET<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>] is obtained using Table 3.7.3.3.2.37-1 and the *i*<sup>th</sup> member of the set N\_RSCH\_BITS\_IDX\_SET<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>] as the index to the table.
  - + If USE\_FLEX\_NUM\_BITS<sub>s</sub> is equal to '1' and RSCH\_NBIT\_TABLE\_ID<sub>s</sub>[FOR\_SCH\_ID<sub>r</sub>] is not equal to '0000', then
    - o the mobile station shall set N\_RSCH\_BITS\_SET<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>], the set of number of information bits per frame as follows. The *i*<sup>th</sup> member of the set N\_RSCH\_BITS\_SET<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>] is equal to NUM\_BITS<sub>s</sub>[SCH\_NBIT\_TABLE\_ID<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>]] [N\_RSCH\_BITS\_IDX\_SET<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>][i]], where N\_RSCH\_BITS\_IDX\_SET<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>][i] denotes the *i*<sup>th</sup> member of the set N\_RSCH\_BITS\_IDX\_SET<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>].

- 1           o the mobile station shall set RSCH\_CRC\_LEN\_SET<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>], the  
 2           set of number of information bits per frame as follows.  
 3           The  $i^{\text{th}}$  member of the set RSCH\_CRC\_LEN\_IDX\_SET<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>] is  
 4           equal to  
 5           CRC\_LEN\_IDX<sub>s</sub>[RSCH\_NBIT\_TABLE\_ID<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>]][N\_RSCH\_BITS\_I  
 6           DX\_SET<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>][i]], where  
 7           N\_RSCH\_BITS\_IDX\_SET<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>][i] denotes the  $i^{\text{th}}$  member of the  
 8           set N\_RSCH\_BITS\_IDX\_SET<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>].

- 9       • If REV\_SCH\_DURATION<sub>s</sub>[REV\_SCH\_ID] is not equal to '0000', then  
 10      – If the mobile station is currently transmitting on the Reverse Supplemental  
        Channel identified by REV\_SCH\_ID, then the mobile station may continue  
        transmitting on the Reverse Supplemental Channel identified by REV\_SCH\_ID  
        with the Walsh cover specified by  
        REV\_WALSH\_ID<sub>s</sub>[REV\_SCH\_ID][REV\_SCH\_NUM\_BITS\_IDX[REV\_SCH\_ID<sub>r</sub>]]  
        according to the current Reverse Supplemental Assignment for the Reverse  
        Supplemental Channel identified by REV\_SCH\_ID up to the time specified by the  
        REV\_SCH\_START\_TIME<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>] (i.e., the mobile station shall stop  
        transmitting on the reverse supplemental channel identified by REV\_SCH\_ID at  
        either the time specified by [REV\\_SCH\\_START\\_TIME<sub>s</sub>\[REV\\_SCH\\_ID\]](#), the start  
        time of the new assignment, or at the time the previously received assignment  
        ends, whichever time is earlier).

22       At the time specified by REV\_SCH\_START\_TIME<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>], the mobile  
 23       station may start transmitting on the Reverse Supplemental Channel identified  
 24       by REV\_SCH\_ID with the Walsh cover specified by  
 25       REV\_WALSH\_ID<sub>s</sub>[REV\_SCH\_ID][REV\_SCH\_NUM\_BITS\_IDX<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>]] ~~and~~  
 26       and number of bits per frame (or set of number of information bits per frame if  
 27       RSCH\_VAR\_TABLE\_ID<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>] is not equal to '000') specified by  
 28       N\_RSCH\_BITS\_SET<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>].

29       If the set of number of bits per frame, N\_RSCH\_BITS\_SET<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>], has  
 30       more than one member and R\_INC\_RATE\_ALLOWED<sub>s</sub> is equal to '0', then the  
 31       following rule applies for the duration of this assignment:

- 32       + Once the mobile station transmits  $n$  number of bits per Reverse  
 33       Supplemental Channel specifies by REV\_SCH\_ID, where  $n$  is a member of the  
 34       set N\_RSCH\_BITS\_SET<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>], the mobile station shall not transmit  
 35       at a rate higher than the one specifies by  $n$  information bits per frame for the  
 36       duration of the assignment.

- 1    – If the mobile station is not currently transmitting on the Reverse Supplemental  
 2    Channel identified by REV\_SCH\_ID<sub>r</sub>, then at the time specified by  
 3    REV\_SCH\_START\_TIME<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>], the mobile station may start  
 4    transmitting on the Reverse Supplemental Channel identified by REV\_SCH\_ID  
 5    with the Walsh cover specified by  
 6    REV\_WALSH\_ID<sub>s</sub>[REV\_SCH\_ID][REV\_SCH\_NUM\_BITS\_IDX<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>]] and  
 7    number of bits per frame (or set of number of information bits per frame if  
 8    RSCH\_VAR\_TABLE\_ID<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>] is not equal to '000') specified by  
 9    N\_RSCH\_BITS\_SET<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>]. If the set of number of bits per frame,  
 10   N\_RSCH\_BITS\_SET<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>], has more than one member and  
 11   R\_INC\_RATE\_ALLOWED<sub>s</sub> is equal to '0', then the following rule applies for the  
 12   duration of this assignment:
  - 13     + Once the mobile station transmits  $n$  number of bits per Reverse  
 14       Supplemental Channel specifies by REV\_SCH\_ID, where  $n$  is a member of the  
 15       set N\_RSCH\_BITS\_SET<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>], the mobile station shall not transmit  
 16       at a rate higher than the one specifies by  $n$  information bits per frame for the  
 17       duration of the assignment.
- 18   • If REV\_SCH\_DURATION<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>] is equal to '0000', the mobile station shall  
 19       perform the followings:
  - 20       – If the mobile station is currently transmitting on the Reverse Supplemental  
 21       Channel identified by REV\_SCH\_ID, then the mobile station may continue  
 22       transmitting on the Reverse Supplemental Channel identified by REV\_SCH\_ID  
 23       with the Walsh cover specified by  
 24       REV\_WALSH\_ID<sub>s</sub>[REV\_SCH\_ID][REV\_SCH\_NUM\_BITS\_IDX[REV\_SCH\_ID<sub>r</sub>]]  
 25       according to the current Reverse Supplemental Assignment for the Reverse  
 26       Supplemental Channel identified by REV\_SCH\_ID up to the time specified by the  
 27       implicit start time (if REV\_START\_TIME\_INCL<sub>s</sub> is equal to '1') or the explicit start  
 28       time (if REV\_START\_TIME\_INCL<sub>s</sub> is equal to '1') (i.e., the mobile station shall  
 29       stop transmitting on the reverse supplemental channel identified by  
 30       REV\_SCH\_ID at the implicit start time or the explicit start time, or at the time  
 31       the previously received assignment ends, whichever time is earlier). The mobile  
 32       station shall cancel the pending Reverse Supplemental Channel assignment if  
 33       any.  
 34       + — If REV\_START\_TIME\_INCL<sub>s</sub> is equal to '1', the mobile station shall stop  
 35       transmitting on the Reverse Supplemental Channel identified by  
 36       REV\_SCH\_ID<sub>r</sub> at the time specified by  
 37       REV\_SCH\_START\_TIME<sub>s</sub>[REV\_SCH\_ID<sub>r</sub>].
  - 38       + — If REV\_START\_TIME\_INCL<sub>s</sub> is equal to '0', the mobile station shall stop  
 39       transmitting on the Reverse Supplemental Channel identified by  
 40       REV\_SCH\_ID<sub>r</sub> no later than the first 80 ms boundary (relative to System  
 41       Time) occurring at least 80 ms after the end of the frame containing the last  
 42       bit of the message.

- Otherwise, if the mobile is not currently transmitting on the Reverse Supplemental Channel identified by REV SCH ID, the mobile station shall cancel the pending Forward Supplemental Channel assignment if any.
- If the PILOT\_GATING\_USE\_RATE is equal to '0', the mobile station shall start the continuous reverse pilot at the specified action time.

#### 2.6.6.2.5.2 Processing of Reverse Traffic Channel Handoff Messages

The mobile station sends the following messages on the Reverse Traffic Channel in support of handoff when its transmitter is enabled, following the receipt of a *forward dedicated channel acquired* indication from Layer 2 (see 2.2.2.1.2 of [4]):

1. *Pilot Strength Measurement Message or Extended Pilot Strength Measurement Message:* The mobile station shall send an autonomous *Pilot Strength Measurement Message* if P\_REV\_IN\_USE is less than seven or *Extended Pilot Strength Measurement Message* if P\_REV\_IN\_USE is equal to or greater than seven in assured mode. The mobile station shall send either *Pilot Strength Measurement Message* or *Extended Pilot Strength Measurement Message* containing measurements consistent with the event whenever any of the following events occur:
  - P\_REV\_IN\_USE<sub>s</sub> is less than or equal to three or SOFT\_SLOPE<sub>s</sub> is equal to '000000' and the strength of a Neighbor Set or Remaining Set pilot is found to be above T\_ADD<sub>s</sub>.
  - P\_REV\_IN\_USE<sub>s</sub> is greater than three, SOFT\_SLOPE<sub>s</sub> is not equal to '000000', and the strength PS, as specified in 2.6.6.2.2, of any Candidate Set pilot is found to satisfy the following inequality:

$$10 \times \log_{10} \text{PS} > \frac{\text{SOFT\_SLOPE}_s}{8} \times 10 \times \log_{10} \sum_{i \in A} \text{PS}_i + \frac{\text{ADD\_INTERCEPT}_s}{2}$$

where the summation is performed over all pilots currently in the Active Set and a *Pilot Strength Measurement Message* or an *Extended Pilot Strength Measurement Message* carrying this information has not been sent since the last *Extended Handoff Direction Message*, *General Handoff Direction Message* or *Universal Handoff Direction Message* was received.

- P\_REV\_IN\_USE<sub>s</sub> is greater than three, SOFT\_SLOPE<sub>s</sub> is not equal to '000000', and the strength PS, as specified in 2.6.6.2.2, of any Neighbor Set or Remaining Set pilot is found to satisfy the following inequality:

$$10 \times \log_{10} \text{PS} > \max\left(\frac{\text{SOFT\_SLOPE}_s}{8} \times 10 \times \log_{10} \sum_{i \in A} \text{PS}_i + \frac{\text{ADD\_INTERCEPT}_s}{2}, - \frac{T\_ADD_s}{2}\right)$$

where the summation is performed over all pilots currently in the Active Set.

- 1     • P\_REV\_IN\_USE<sub>s</sub> is less than or equal to three or SOFT\_SLOPE<sub>s</sub> is equal to  
 2       ‘000000’, the strength of a Candidate Set pilot exceeds the strength of an Active  
 3       Set pilot by T\_COMP<sub>s</sub> × 0.5 dB, and a *Pilot Strength Measurement Message*  
 4       carrying this information has not been sent since the last *Extended Handoff*  
 5       *Direction Message*, *General Handoff Direction Message* or *Universal Handoff*  
 6       *Direction Message* was received.
- 7     • P\_REV\_IN\_USE<sub>s</sub> is greater than three, SOFT\_SLOPE<sub>s</sub> is not equal to ‘000000’,  
 8       and the strength of a Candidate Set pilot exceeds the strength of an Active Set  
 9       pilot by T\_COMP<sub>s</sub> × 0.5 dB and satisfies the following inequality:

10    
$$10 \times \log_{10} PS > \frac{\text{SOFT\_SLOPE}_s}{8} \times 10 \times \log_{10} \sum_{i \in A} PS_i + \frac{\text{ADD\_INTERCEPT}_s}{2}$$

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11 where the summation is performed over all pilots currently in the Active Set and  
 12 a *Pilot Strength Measurement Message* or an *Extended Pilot Strength Measurement*  
 13 *Message* carrying this information has not been sent since the last *Extended*  
 14 *Handoff Direction Message*, *General Handoff Direction Message* or *Universal*  
 15 *Handoff Direction Message* was received.

- 16    • The handoff drop timer of an Active Set pilot has expired and a *Pilot Strength*  
 17 *Measurement Message* or an *Extended Pilot Strength Measurement Message*  
 18 carrying this information has not been sent since the last *Extended Handoff*  
 19 *Direction Message*, *General Handoff Direction Message*, or *Universal handoff*  
 20 *Direction Message* was received.
- 21    2. *Handoff Completion Message* or *Extended Handoff Completion Message*: The mobile  
 22 station shall send a *Handoff Completion Message* if P\_REV\_IN\_USE is less than  
 23 seven or an *Extended Handoff Completion Message* if P\_REV\_IN\_USE is equal to or  
 24 greater than seven in assured mode as follows:
- 25    • If the handoff message (*Extended Handoff Direction Message*, *General Handoff*  
 26 *Direction Message* or *Universal Handoff Direction Message*) specifies a soft  
 27 handoff, the mobile station shall send the *Handoff Completion Message* if  
 28 P\_REV\_IN\_USE is less than seven or an *Extended Handoff Completion Message* if  
 29 P\_REV\_IN\_USE is equal to or greater than seven within T<sub>56m</sub> seconds after the  
 30 action time of the received handoff message.
- 31    • If the handoff message (*Extended Handoff Direction Message*, *General Handoff*  
 32 *Direction Message* or *Universal Handoff Direction Message*) specifies a hard  
 33 handoff without return on failure (see 2.6.6.2.8.1), the mobile station shall send  
 34 the *Handoff Completion Message* if P\_REV\_IN\_USE is less than seven or an  
 35 *Extended Handoff Completion Message* if P\_REV\_IN\_USE is equal to or greater  
 36 than seven within T<sub>73m</sub> seconds after the action time of the received handoff  
 37 message.

- 1     • If the handoff message (*General Handoff Direction Message* or *Universal Handoff  
Direction Message*) specifies a hard handoff with return on failure (see  
2       2.6.6.2.8.2), the mobile station shall send the *Handoff Completion Message* if  
3       P\_REV\_IN\_USE is less than seven or an *Extended Handoff Completion Message* if  
4       P\_REV\_IN\_USE is equal to or greater than seven within T<sub>56m</sub> seconds after  
5       mobile station declares the handoff to be successful (see 2.6.6.2.8.2).

6     3. *Candidate Frequency Search Report Message*: The mobile station shall send a  
7       *Candidate Frequency Search Report Message* in assured mode, whenever any of the  
8       following events occur:

- 9       • RETURN\_IF\_HANDOFF\_FAIL<sub>s</sub> is equal to '1', and a handoff attempt is  
10      unsuccessful (see 2.6.6.2.8.2). In this case, the mobile station shall send a  
11       *Candidate Frequency Search Report Message* within T<sub>56m</sub> seconds after  
12       completing a search of all pilots in the Candidate Frequency Search Set and  
13       resuming the use of the Serving Frequency Active Set (see 2.6.6.2.8.2.1).
- 14       • RETURN\_IF\_HANDOFF\_FAIL<sub>s</sub> is equal to '1', an inter-frequency handoff attempt  
15      is unsuccessful (see 2.6.6.2.8.2), and PERIODIC\_SEARCH<sub>s</sub> is equal to '1'. In  
16      this case, the mobile station shall send a *Candidate Frequency Search Report  
17       Message* in a search period if the conditions specified in 2.6.6.2.8.3.2 are met.
- 18       • The mobile station receives a *Candidate Frequency Search Request Message* or a  
19       *Candidate Frequency Search Control Message* with SEARCH\_TYPE set to '01'. If  
20       none of the conditions requiring the mobile station to send a *Mobile Station  
21       Reject Order* is true (see 2.6.6.2.5.1), the mobile station shall send a *Candidate  
22       Frequency Search Report Message*, as described in 2.6.6.2.8.3.1 and  
23       2.6.6.2.10.1.
- 24       • The mobile station receives a *Candidate Frequency Search Request Message* or  
25       *Candidate Frequency Search Control Message* with SEARCH\_TYPE set to '11',  
26       SEARCH\_MODE<sub>s</sub> is equal to '0000' and the Candidate Frequency Search Set is  
27       not empty. If none of the conditions requiring the mobile station to send a  
28       *Mobile Station Reject Order* is true (see 2.6.6.2.5.1), the mobile station shall send  
29       a *Candidate Frequency Search Report Message* in a search period if the  
30       conditions specified in 2.6.6.2.8.3.2 are met.
- 31       • The mobile station receives a *Candidate Frequency Search Request Message* or  
32       *Candidate Frequency Search Control Message* with SEARCH\_TYPE set to '11',  
33       SEARCH\_MODE<sub>s</sub> is equal to '0001' and the Candidate Frequency Analog Search  
34       Set is not empty. If none of the conditions requiring the mobile station to send a  
35       *Mobile Station Reject Order* is true (see 2.6.6.2.5.1), the mobile station shall send  
36       a *Candidate Frequency Search Report Message* in a search period if the  
37       conditions specified in 2.6.6.2.10.2 are met.
- 38     4. *Periodic Pilot Strength Measurement Message*: The mobile station shall send a  
39       *Periodic Pilot Strength Measurement Message* in unassured mode, as specified in  
40       2.6.6.2.5.1 and 2.6.6.2.12.
- 41     5. *Pilot Strength Measurement Mini Message*: If the mobile station supports the Mobile

1 Assisted Burst operation capability, the mobile station shall send this message while  
 2 processing any Supplemental Channel, according to the following:

- 3     • The mobile station shall transmit a *Pilot Strength Measurement Mini Message* for  
 4       a pilot  $p$  in the Active Set on the r-dsch logical channel whenever all of the  
 5       following conditions are true:
  - 6         – ORDER\_FLAG<sub>s</sub> is equal to '1'.
  - 7         – The pilot  $p$  in the Active Set has a received signal strength that is greater  
 8           than the signal strength of another pilot in the Active Set by  
 9           PS\_MIN\_DELTA<sub>s</sub>, in units of 0.5 dB, at the current time and has been for  
 10          ORDER\_INTERVAL<sub>s</sub> most recent successive 20 ms frame intervals since this  
 11          pilot was last reported in a rank order based *Pilot Strength Measurement Mini*  
 12          *Message*.
  - 13         – The rank order of pilot  $p$  has changed.
- 14     • If PERIODIC\_FLAG<sub>s</sub> is equal to '1', the mobile station shall transmit a *Pilot*  
 15       *Strength Measurement Mini Message* within PERIODIC\_INTERVAL<sub>s</sub> 20 ms frame  
 16       intervals on the r-dsch for each of the  $n$  pilots in the Active Set with the largest  
 17       signal strengths, where  $n = (\min(\text{NUM_PILOTS}, \text{the number of pilots in the})$   
 18       Active Set)), whenever the following condition is true:
  - 19         – The mobile station has not transmitted another *Pilot Strength*  
 20           *Measurement Mini Message* for the corresponding pilot during the last  
 21           PERIODIC\_INTERVAL<sub>s</sub> 20 ms frame intervals.
- 22     • If THRESHOLD\_FLAG<sub>s</sub> is equal to '1', the mobile station shall transmit a *Pilot*  
 23       *Strength Measurement Mini Message* for pilot  $p$  on the r-dsch logical channel  
 24       whenever all of the following conditions are true:
  - 25         – The mobile station has not transmitted a previous *Pilot Strength Measurement*  
 26           *Mini Message* for pilot  $p$  within the most recent THRESHOLD\_INTERVAL<sub>s</sub> 20  
 27           ms frames intervals.
  - 28         – Pilot  $p$  is in the Active Set.
  - 29         – The signal strength of pilot  $p$  is greater than PS\_CEILING\_HIGH<sub>s</sub> and the  
 30           signal strength of pilot  $p$  was less than or equal to PS\_CEILING\_LOW<sub>s</sub> at any  
 31           time since the mobile station last sent a *Pilot Strength Measurement Mini*  
 32           *Message* for pilot  $p$ ; or the signal strength of pilot  $p$  is less than  
 33           PS\_FLOOR\_LOW<sub>s</sub> and the signal strength for pilot  $p$  was greater than or  
 34           equal to PS\_FLOOR\_HIGH<sub>s</sub> at any time since the last time that the mobile  
 35           station sent a *Pilot Strength Measurement Mini Message* for pilot  $p$ .

36     2.6.6.2.6 Set Maintenance

37       2.6.6.2.6.1 Maintenance of the Active Set

38       The mobile station shall support a maximum Active Set size of N<sub>6m</sub> pilots. The mobile  
 39       station shall track the pilot strengths of all pilots in the Active Set.

When the mobile station is first assigned Forward Traffic Channels, the mobile station shall initialize the Active Set to contain the pilots associated with the assigned Forward Traffic Channels. When the mobile station processes an *Extended Handoff Direction Message*, a *General Handoff Direction Message* or *Universal Handoff Direction Message*, then at the action time of the message the mobile station shall replace the pilots in the Active Set with the pilots listed in the message.

#### 2.6.6.2.6.2 Maintenance of the Candidate Set

The mobile station shall support a maximum Candidate Set size of  $N_{7m}$  pilots.

When the mobile station is first assigned a Forward Traffic Channel, the mobile station shall initialize the Candidate Set to contain no pilots. The mobile station shall adjust the Candidate Set whenever any of the following events occur:

- If the mobile station detects that the strength of a Neighbor Set pilot or a Remaining Set pilot exceeds  $T_{ADD_s}$ , the mobile station shall add the pilot to the Candidate Set.
- If the mobile station processes an *Extended Handoff Direction Message*, a *General Handoff Direction Message* or a *Universal Handoff Direction Message* which does not list a pilot in the current Active Set, and the handoff drop timer corresponding to that pilot has not expired at the action time of the message, the mobile station shall add the pilot to the Candidate Set at the action time of the message.
- If  $P_{REV\_IN\_USE_s}$  is greater than three, and  $SOFT\_SLOPE_s$  is not equal to '000000', the mobile station shall perform the following: If the mobile station processes a *General Handoff Direction Message* or a *Universal Handoff Direction Message* which does not list a pilot in the current Active Set, the handoff drop timer corresponding to that pilot has expired at the action time of the message, and that pilot is found to be above  $T_{DROP_s}$ , the mobile station shall add the pilot to the Candidate Set at the action time of the message.
- If the mobile station processes an *Extended Handoff Direction Message*, a *General Handoff Direction Message* or *Universal Handoff Direction Message*, which lists a pilot in the current Candidate Set, the mobile station shall delete the pilot from the Candidate Set at the action time of the message.
- If the handoff drop timer corresponding to a Candidate Set pilot expires, the mobile station shall delete the pilot from the Candidate Set.
- If the mobile station adds a pilot to the Candidate Set, and the resulting Candidate Set size exceeds  $N_{7m}$ , the mobile station shall delete from the Candidate Set the pilot whose handoff drop timer is closest to expiration. If more than one such pilot exists, the mobile station shall delete one such pilot that has the lowest strength. If no pilot in the Candidate Set has an enabled handoff drop timer, the mobile station shall delete from the Candidate Set the pilot that has the lowest strength.

#### 2.6.6.2.6.3 Maintenance of the Neighbor Set

The mobile station shall support a Neighbor Set size of at least  $N_{8m}$  pilots.

1 When the mobile station is first assigned a Forward Traffic Channel, the mobile station  
 2 shall initialize the Neighbor Set to contain all the pilots specified in the most recently  
 3 received *Neighbor List Message*, *Extended Neighbor List Message* or *General Neighbor List*  
 4 *Message*.

5 The mobile station shall maintain a counter, AGE<sub>S</sub>, for each pilot in the Neighbor Set. The  
 6 mobile station shall initialize this counter to zero when it moves the pilot from the Active  
 7 Set or the Candidate Set to the Neighbor Set. The mobile station shall initialize this  
 8 counter to NGHBR\_MAX\_AGE<sub>S</sub> when it moves the pilot from the Remaining Set to the  
 9 Neighbor Set. The mobile station shall increment AGE<sub>S</sub> for each pilot in the Neighbor Set  
 10 upon receipt of a *Neighbor List Update Message* or an *Extended Neighbor List Update*  
 11 *Message*. When the mobile station is first assigned to a Forward Traffic Channel, the  
 12 mobile station shall set AGE<sub>S</sub> for each pilot in the Neighbor Set to NGHBR\_MAX\_AGE<sub>S</sub>.

13 The mobile station shall adjust the Neighbor Set whenever any of the following events  
 14 occur:

- 15     • If the mobile station receives a *Neighbor List Update Message* or an *Extended*  
     16 *Neighbor List Update Message*, it shall perform the following:
  - 17         – Increment AGE<sub>S</sub> for each pilot in the Neighbor Set.
  - 18         – Delete from the Neighbor Set all pilots whose AGE<sub>S</sub> exceeds NGHBR\_MAX\_AGE<sub>S</sub>.
  - 19         – Add to the Neighbor Set each pilot named in the message, if it is not already a  
 20           pilot of the Active Set, Candidate Set, or Neighbor Set. If the mobile station can  
 21           store in the Neighbor Set only k additional pilots, and more than k new pilots  
 22           were sent in the *Neighbor List Update Message* or the *Extended Neighbor List*  
 23           *Update Message*, the mobile station shall store the first k new pilots listed in the  
 24           message.
- 25     • If the handoff drop timer of a pilot in the Candidate Set expires, the mobile station  
     26 shall add the pilot to the Neighbor Set.
- 27     • If P\_REV\_IN\_USE<sub>S</sub> is less than or equal to three or SOFT\_SLOPE<sub>S</sub> is equal to  
     28 ‘000000’, the mobile station shall perform the following: If the mobile station  
     29 processes an *Extended Handoff Direction Message*, a *General Handoff Direction*  
     30 *Message*, or a *Universal Handoff Direction Message* in which a pilot in the Active Set  
     31 is not listed, and the handoff drop timer corresponding to the pilot has expired, the  
     32 mobile station shall add the pilot to the Neighbor Set.
- 33     • If P\_REV\_IN\_USE<sub>S</sub> is greater than three, and SOFT\_SLOPE<sub>S</sub> is not equal to ‘000000’,  
     34 the mobile station shall perform the following: If the mobile station processes an  
     35 *Extended Handoff Direction Message*, a *General Handoff Direction Message*, or a  
     36 *Universal Handoff Direction Message* which does not list a pilot in the current Active  
     37 Set, the handoff drop timer corresponding to that pilot has expired, and that pilot is  
     38 found to be below T\_DROP<sub>S</sub>, the mobile station shall add the pilot to the Neighbor  
     39 Set.

- If the mobile station adds a pilot to the Candidate Set, and the resulting Candidate Set size exceeds the size supported by the mobile station, the mobile station shall add the deleted Candidate Set pilot to the Neighbor Set (see 2.6.6.2.6.2).
- If the mobile station detects that the strength of a Neighbor Set pilot exceeds  $T_{ADD_S}$ , the mobile station shall delete the pilot from the Neighbor Set.
- If the mobile station processes an *Extended Handoff Direction Message*, a *General Handoff Direction Message* or a *Universal Handoff Direction Message* which lists a pilot in the current Neighbor Set, the mobile station shall delete the pilot from the Neighbor Set.
- If the mobile station adds a pilot to the Neighbor Set, and the resulting Neighbor Set size exceeds the size supported by the mobile station, the mobile station shall delete from the Neighbor Set the pilot whose  $AGE_S$  is the largest. If more than one such pilot exists, the mobile station shall delete one such pilot that has the lowest strength.

#### 2.6.6.2.7 Soft Handoff

##### 2.6.6.2.7.1 Forward Traffic Channel Processing

All Forward Traffic Channels associated with pilots in the Active Set of the mobile station carry identical modulation symbols with the exception of the power control subchannel (see [2]).

When the Active Set contains more than one pilot, the mobile station should provide diversity combining of the associated Forward Traffic Channels. The mobile station shall provide for differential propagation delays from zero to at least 150  $\mu s$ .

##### 2.6.6.2.7.2 Reverse Traffic Channel Power Control During Soft Handoff

The *Extended Handoff Direction Message*, a *General Handoff Direction Message* or a *Universal Handoff Direction Message* identifies sets of Forward Fundamental ~~Code~~-Channels or Forward Dedicated Control Channels that carry identical closed loop power control subchannels. A set consists of one or more Forward Fundamental ~~Code~~-Channels or Forward Dedicated Control Channels with identical power control information.

In each power control group containing valid power control bits (see [2]), the mobile station should provide diversity combining of the identical closed loop power control subchannels and shall obtain at most one power control bit from each set of identical closed loop power control subchannels. The mobile station should only combine reliable power control bits (see 9.3.8 of [11]) as follows:

- If the reliable power control bits obtained from all sets are equal to '0', the mobile station shall increase its power as specified in [2].
- If the reliable power control bit obtained from any set is equal to '1', the mobile station shall decrease its power as specified in [2].

1        2.6.6.2.7.3 Starting Periodic Search following Soft Handoff

2        If the PERIODIC SEARCH<sub>S</sub> is equal to '1', a periodic search is not already in progress, and  
 3        the Frequency Assignment after handoff is different from the Candidate Frequency  
 4        (CDMABAND<sub>S</sub> is not equal to CF\_CDMABAND<sub>S</sub> or CDMACH<sub>S</sub> is not equal to CF\_CDMACH<sub>S</sub>),  
 5        the mobile station shall do the following:

- 6            • The mobile station shall set ALIGN\_TIMING\_USED<sub>S</sub> to '0' and SEARCH\_OFFSET<sub>S</sub> to  
 7            '000000'.
- 8            • The mobile station shall start a periodic search as described in 2.6.6.2.8.3.2.

9        2.6.6.2.8 CDMA-to-CDMA Hard Handoff

10      The base station directs the mobile station to perform a CDMA-to-CDMA hard handoff by  
 11     sending an *Extended Handoff Direction Message*, a *General Handoff Direction Message* or a  
 12     *Universal Handoff Direction Message* in which the mobile station is transitioned between  
 13     disjoint sets of base stations, different Frequency Assignments, or different frame offsets. If  
 14     RETURN\_IF\_HANDOFF\_FAIL<sub>S</sub> is equal to '0', the mobile station performs the actions  
 15     described in 2.6.6.2.8.1. If RETURN\_IF\_HANDOFF\_FAIL<sub>S</sub> is equal to '1', the mobile station  
 16     performs the actions described in 2.6.6.2.8.2.

17      2.6.6.2.8.1 Hard Handoff without Return on Failure

18      At the action time specified in the *Extended Handoff Direction Message*, the *General Handoff*  
 19     *Direction Message* or *Universal Handoff Direction Message* the mobile station shall disable  
 20     its transmitter, reset the fade timer specified in 2.6.4.1.8, suspend incrementing  
 21     TOT\_FRAMES<sub>S</sub>, BAD\_FRAMES<sub>S</sub>, DCCH\_TOT\_FRAMES<sub>S</sub>, and DCCH\_BAD\_FRAMES<sub>S</sub> if  
 22     applicable as specified in 2.6.4.1.1, and tune to the assigned Forward Traffic Channel. The  
 23     mobile station shall perform acquisition of the pilots in the new Active Set.

24      If a periodic Serving Frequency pilot report procedure is in progress, the mobile station  
 25     shall abort it (see 2.6.6.2.12).

26      The mobile station shall begin monitoring the assigned Forward Traffic Channel within the  
 27     time specified below:

- 28            • If the *Extended Handoff Direction Message*, *General Handoff Direction Message* or  
 29            *Universal Handoff Direction Message* specifies a CDMA Frequency Assignment  
 30            different from the Serving Frequency and an Active Set containing pilots with pilot  
 31            PN sequence offsets identical to those of the pilots in the Serving Frequency Active  
 32            Set, the mobile station shall begin monitoring the assigned Forward Traffic Channel  
 33            within T<sub>60m</sub> seconds after the action time.
- 34            • If the *Extended Handoff Direction Message*, *General Handoff Direction Message* or  
 35            *Universal Handoff Direction Message* specifies a CDMA Frequency Assignment  
 36            different from the Serving Frequency and an Active Set containing a pilot with pilot  
 37            PN sequence offset not equal to that of any pilot in the Serving Frequency Active Set,  
 38            the mobile station shall begin monitoring the assigned Forward Traffic Channel  
 39            within T<sub>61m</sub> seconds after the action time.

- 1     • If the *Extended Handoff Direction Message*, *General Handoff Direction Message* or  
 2       *Universal Handoff Direction Message* specifies a CDMA-to-CDMA hard handoff  
 3       without changing the CDMA Frequency Assignment, the mobile station shall begin  
 4       monitoring the assigned Forward Traffic Channel within T<sub>62m</sub> seconds after the  
 5       action time.

6     If the Target Frequency is the same as the Candidate Frequency (TF\_CDMABAND<sub>S</sub> is equal  
 7       to CF\_CDMABAND<sub>S</sub>, and TF\_CDMACH<sub>S</sub> is equal to CF\_CDMACH<sub>S</sub>) and is different from the  
 8       Serving Frequency (TF\_CDMABAND<sub>S</sub> is not equal to SF\_CDMABAND<sub>S</sub>, or TF\_CDMACH<sub>S</sub> is  
 9       not equal to SF\_CDMACH<sub>S</sub>), the mobile station shall perform the following:

- 10    • If applicable, the mobile station shall replace its Neighbor Set with its Candidate  
   11      Frequency Neighbor Set, excluding the pilots in its Active Set. When the mobile  
   12      station adds a pilot from its Candidate Frequency Neighbor Set to its Active Set, it  
   13      shall maintain SEARCH\_PRIORITY<sub>S</sub>, SRCH\_WIN\_NGHBR<sub>S</sub>, and  
   14      SRCH\_OFFSET\_NGHBR<sub>S</sub> associated with the pilot.  
  
 15    • The mobile station shall set PILOT\_INC<sub>S</sub> to CF\_PILOT\_INC<sub>S</sub>, SRCH\_WIN\_N<sub>S</sub> to  
   16      CF\_SRCH\_WIN\_N<sub>S</sub>, and SRCH\_WIN\_R<sub>S</sub> to CF\_SRCH\_WIN\_R<sub>S</sub>.  
  
 17    • The mobile station shall set SEARCH\_PRIORITY\_INCL<sub>S</sub> to  
   18      CF\_SEARCH\_PRIORITY\_INCL<sub>S</sub>, SRCH\_OFFSET\_INCL<sub>S</sub> to CF\_SRCH\_OFFSET\_INCL<sub>S</sub>,  
   19      and SRCH\_WIN\_NGHBR\_INCL<sub>S</sub> to CF\_SRCH\_WIN\_NGHBR\_INCL<sub>S</sub>.

20    After the action time, upon receiving a period of ( $N_{11m} \times 20$ ) ms with sufficient signal  
 21    quality (e.g. good frames) on the physical channel corresponding to FPC\_PRI\_CHAN<sub>S</sub> on the  
 22    assigned Forward Traffic Channel, the mobile station shall re-enable its transmitter. The  
 23    mobile station shall transmit the Traffic Channel Preamble, as described in 2.1.3.6.2.3 of  
 24    [2], followed by a *Handoff Completion Message* or *Extended Handoff Completion Message*.

25    After the action time, upon receiving a period of ( $N_{3m} \times 20$ ) ms with sufficient signal quality  
 26    (e.g. good frames) on the physical channel corresponding to FPC\_PRI\_CHAN<sub>S</sub>, the mobile  
 27    station shall resume incrementing TOT\_FRAMES<sub>S</sub>, BAD\_FRAMES<sub>S</sub>, DCCH\_TOT\_FRAMES<sub>S</sub>,  
 28    and DCCH\_BAD\_FRAMES<sub>S</sub> if applicable as specified in 2.6.4.1.1.

29    If the PERIODIC\_SEARCH<sub>S</sub> is equal to '1', a periodic search is not already in progress, and  
 30    the Frequency Assignment after handoff is different from the Candidate Frequency  
 31    (CDMABAND<sub>S</sub> is not equal to CF\_CDMABAND<sub>S</sub> or CDMACH<sub>S</sub> is not equal to CF\_CDMACH<sub>S</sub>),  
 32    the mobile station shall do the following:

- 33      • The mobile station shall set ALIGN\_TIMING\_USED<sub>S</sub> to '0' and SEARCH\_OFFSET<sub>S</sub> to  
 34       '000000'.  
  
 35      • The mobile station shall start a periodic search as described in 2.6.6.2.8.3.2.

### 36    2.6.6.2.8.2 Hard Handoff with Return on Failure

37    At the action time specified in the *General Handoff Direction Message* or *Universal Handoff  
 38    Direction Message*, the mobile station shall do the following:

- 1     • The mobile station shall stop processing the Forward Fundamental **Code**-Channel,  
2       the Forward Dedicated Control Channel, the Forward Supplemental Code Channels  
3       (if any), and the Forward Supplemental Channels (if any).
- 4     • The mobile station shall stop transmitting on the Reverse Fundamental **Code**  
5       Channel, on the Reverse Dedicated Control Channel, and on the Reverse  
6       Supplemental Code Channels (if any), and on the Reverse Supplemental Channels (if  
7       any).
- 8     • The mobile station shall disable the fade timer (see 2.6.4.1.8) and the handoff drop  
9       timers corresponding to the Serving Frequency Active Set and Candidate Set (see  
10      2.6.6.2.3), and shall suspend incrementing TOT\_FRAMES<sub>S</sub>, BAD\_FRAMES<sub>S</sub>,  
11      DCCH\_TOT\_FRAMES<sub>S</sub>, and DCCH\_BAD\_FRAMES<sub>S</sub> if applicable (see 2.6.4.1.1).
- 12    • The mobile station shall lock the accumulation of valid level changes in the closed  
13      loop mean output power and shall ignore received power control bits related to the  
14      period that the transmitter is disabled (see 2.1.2.3.2 of [2]).
- 15    • If the Serving Frequency is different from the Target Frequency (SF\_CDMACH<sub>S</sub> is not  
16      equal to TF\_CDMACH<sub>S</sub> or SF\_CDMABAND<sub>S</sub> is not equal to TF\_CDMABAND<sub>S</sub>), the  
17      mobile station shall set CDMACH<sub>S</sub> to TF\_CDMACH<sub>S</sub> and CDMABAND<sub>S</sub> to  
18      TF\_CDMABAND<sub>S</sub>, and shall tune to the Target Frequency.

19    The mobile station shall not change its time reference (see 2.1.5 of [2]) until the handoff is  
20      successfully completed (as described later in this section) or the mobile station resumes  
21      using the Serving Frequency Active Set (as described in 2.6.6.2.8.2.1).

22    The mobile station shall maintain a *handoff* timer. The mobile station shall set the  
23      expiration time for the handoff timer to  $(0.08 \times \text{TF_WAIT_TIME}_S)$  seconds and enable the  
24      timer at the action time of the *General Handoff Direction Message* or *Universal Handoff  
25      Direction Message*.

26    The mobile station shall perform the following actions:

- 27     • If the Target Frequency is different from the Serving Frequency (TF\_CDMABAND<sub>S</sub> is  
28       not equal to SF\_CDMABAND<sub>S</sub>, or TF\_CDMACH<sub>S</sub> is not equal to SF\_CDMACH<sub>S</sub>), the  
29       mobile station shall measure the mean input power on the Target Frequency  
30       (*target\_freq\_pwr*, in dBm/1.23 MHz) and may use *target\_freq\_pwr* along with the  
31       measurement of the average input power on the Serving Frequency  
32       (*avg\_serving\_freq\_pwr*, in dBm/1.23 MHz) in the handoff procedure. The mobile  
33       station may declare the handoff attempt to be unsuccessful if all of the following  
34       conditions are true:
  - 35         – DIFF\_RX\_PWR\_THRESH<sub>S</sub> is not equal to '00000',
  - 36         – the mobile station has been measuring the received power on the Serving  
37           Frequency for at least the last N<sub>12m</sub> frames, and
  - 38         – (*target\_freq\_pwr - avg\_serving\_freq\_pwr*) is less than  $(-30 + 2 \times$   
39           DIFF\_RX\_PWR\_THRESH<sub>S</sub>) dB.

If the mobile station declares the handoff attempt to be unsuccessful, it shall restore the configuration to what it was before the handoff attempt (see 2.6.6.2.5.1) and send a *Candidate Frequency Search Report Message* as described in 2.6.6.2.8.2.1.

- The mobile station shall measure  $E_c/I_o$  for each pilot in the Active Set using the procedures specified in 2.6.6.2.2, if any of the following conditions is true:
  - the Target Frequency is the same as the Serving Frequency ( $TF_{CDMABAND_s}$  is equal to  $SF_{CDMABAND_s}$ , and  $TF_{CDMACH_s}$  is equal to  $SF_{CDMACH_s}$ ),
  - the mobile station does not use the power measurements in the handoff procedure,
  - $DIFF_{RX\_PWR\_THRESH_s}$  is equal to '00000',
  - the mobile station has not been measuring the received power on the Serving Frequency for at least the last  $N_{12m}$  frames, or
  - $(target\_freq\_pwr - avg\_servng\_freq\_pwr)$  is not less than  $(-30 + 2 \times DIFF_{RX\_PWR\_THRESH_s})$  dB.

If the mobile station measures  $E_c/I_o$  for pilots in the Active Set, it shall compare the sum of the measured  $E_c/I_o$  for all pilots with the minimum total pilot  $E_c/I_o$  threshold (MIN\_TOTAL\_PILOT\_EC\_IO\_s).

- If MIN\_TOTAL\_PILOT\_EC\_IO\_s is not equal to '00000', and  $(-20 \times \log_{10} (E_c/I_o)_{total})$  is less greater than MIN\_TOTAL\_PILOT\_EC\_IO\_s, where  $(E_c/I_o)_{total}$  is the sum of the measured  $E_c/I_o$  for the pilots in the Active Set, the mobile station shall declare the handoff attempt to be unsuccessful, and shall do the following:
  - + If COMPLETE\_SEARCH\_s is equal to '1', and the Target Frequency is the same as the Candidate Frequency ( $TF_{CDMABAND_s}$  is equal to  $CF_{CDMABAND_s}$ , and  $TF_{CDMACH_s}$  is equal to  $CF_{CDMACH_s}$ ) and is different from the Serving Frequency ( $TF_{CDMABAND_s}$  is not equal to  $SF_{CDMABAND_s}$ , or  $TF_{CDMACH_s}$  is not equal to  $SF_{CDMACH_s}$ ), the mobile station shall measure the strength of each pilot in its Candidate Frequency Search Set using the procedures specified in 2.6.6.2.2; otherwise, the mobile station shall end the search.
  - + Otherwise, the mobile station shall end the search.
  - + The mobile station shall then restore its configuration to what it was before the handoff attempt (see 2.6.6.2.5.1) and send a Candidate Frequency Search Report Message as described in 2.6.6.2.8.2.1.

The mobile station shall then restore its configuration to what it was before the handoff attempt (see 2.6.6.2.5.1) and send a Candidate Frequency Search Report Message as described in 2.6.6.2.8.2.1.

- 1    – If MIN\_TOTAL\_PILOT\_EC\_IO<sub>S</sub> is equal to ‘00000’, or ( $-20 \times \log_{10} (E_c/I_o)_{total}$ ) is  
 2    not less than MIN\_TOTAL\_PILOT\_EC\_IO<sub>S</sub>, where  $(E_c/I_o)_{total}$  is the sum of the  
 3    measured  $E_c/I_o$  for the pilots in the Active Set, the mobile station shall attempt  
 4    to demodulate the Forward Traffic Channel(s). If the Active Set contains more  
 5    than one pilot, the mobile station shall perform the actions specified in  
 6    2.6.6.2.7. If the Target Frequency is the same as the Candidate Frequency  
 7    (TF\_CDMABAND<sub>S</sub> is equal to CF\_CDMABAND<sub>S</sub>, and TF\_CDMACH<sub>S</sub> is equal to  
 8    CF\_CDMACH<sub>S</sub>), and is different for from the Serving Frequency  
 9    (TF\_CDMABAND<sub>S</sub> is not equal to SF\_CDMABAND<sub>S</sub>, or TF\_CDMACH<sub>S</sub> is not equal  
 10   to SF\_CDMACH<sub>S</sub>), the mobile station shall measure the strength of each pilot in  
 11   its Candidate Frequency Search Set using the procedures specified in 2.6.6.2.2,  
 12   and wait to receive a period of ( $N_{11m} \times 20$ ) ms with sufficient signal quality (e.g.  
 13   good frames) on the physical channel corresponding to FPC\_PRI\_CHAN<sub>S</sub>. The  
 14   mobile station shall wait for the first of the following events to occur:
- 15   + The handoff timer expires and the mobile station has not received a period of  
 16   ( $N_{11m} \times 20$ ) ms with sufficient signal quality (e.g. good frames) on the  
 17   physical channel corresponding to FPC\_PRI\_CHAN<sub>S</sub>. In this case, the mobile  
 18   station shall declare the handoff attempt to be unsuccessful, and do the  
 19   following:
- 20     o If COMPLETE\_SEARCH<sub>S</sub> is equal to ‘1’, and if the Target Frequency is the  
 21       same as the Candidate Frequency (TF\_CDMABAND<sub>S</sub> is equal to  
 22       CF\_CDMABAND<sub>S</sub>, and TF\_CDMACH<sub>S</sub> is equal to CF\_CDMACH<sub>S</sub>) and is  
 23       different from the Serving Frequency (TF\_CDMABAND<sub>S</sub> is not equal to  
 24       SF\_CDMABAND<sub>S</sub>, or TF\_CDMACH<sub>S</sub> is not equal to SF\_CDMACH<sub>S</sub>), and  
 25       the mobile station has not completed the search of all pilots in its  
 26       Candidate Frequency Search Set, then it shall complete the search, i.e.,  
 27       it shall obtain at least one measurement of the strength of each pilot in  
 28       its Candidate Frequency Search Set, using the search procedures  
 29       specified in 2.6.6.2.8.3.
- 30     o Otherwise, the mobile station shall end the search.
- 31   The mobile station shall then restore its configuration to what it was before  
 32   the handoff attempt (see 2.6.6.2.5.1) and send a *Candidate Frequency Search*  
 33   *Report Message* as described in 2.6.6.2.8.2.1.
- 34   + The mobile station receives a period of ( $N_{11m} \times 20$ ) ms with sufficient signal  
 35   quality (e.g. good frames) on the physical channel corresponding to  
 36   FPC\_PRI\_CHAN<sub>S</sub>. In this case, the mobile station shall declare the handoff  
 37   attempt to be successful, and do the following:
- 38     o The mobile station shall disable the handoff timer.
- 39     o If TF\_RESET\_L2<sub>S</sub> is equal to ‘1’, Layer 3 shall send a L2-  
 40   Supervision.Request primitive to Layer 2 to reset the acknowledgment  
 41   procedures as specified in 2.2.1.1 and 2.2.2.1 of [4].

- o If TF\_RESET\_FPC<sub>S</sub> is equal to '1', the mobile station shall initialize the Forward Traffic Channel power control counters as specified in 2.6.4.1.1.1.
- o If the Target Frequency is the same as the Candidate Frequency (TF\_CDMABAND<sub>S</sub> is equal to CF\_CDMABAND<sub>S</sub>, and TF\_CDMACH<sub>S</sub> is equal to CF\_CDMACH<sub>S</sub>) and is different from the Serving Frequency (TF\_CDMABAND<sub>S</sub> is not equal to SF\_CDMABAND<sub>S</sub>, or TF\_CDMACH<sub>S</sub> is not equal to SF\_CDMACH<sub>S</sub>), the mobile station shall do the following:
  - ◊ If applicable, The the mobile station shall replace its Neighbor Set with its Candidate Frequency Neighbor Set, excluding the pilots in its Active Set. When the mobile station adds a pilot from its Candidate Frequency Neighbor Set to its Active Set, it shall maintain SEARCH\_PRIORITY<sub>S</sub>, SRCH\_WIN\_NGHBR<sub>S</sub>, and SRCH\_OFFSET\_NGHBR<sub>S</sub> associated with the pilot.
  - ◊ The mobile station shall set PILOT\_INC<sub>S</sub> to CF\_PILOT\_INC<sub>S</sub>, SRCH\_WIN\_N<sub>S</sub> to CF\_SRCH\_WIN\_N<sub>S</sub>, and SRCH\_WIN\_R<sub>S</sub> to CF\_SRCH\_WIN\_R<sub>S</sub>.
  - ◊ The mobile station shall set SEARCH\_PRIORITY\_INCL<sub>S</sub> to CF\_SEARCH\_PRIORITY\_INCL<sub>S</sub>, SRCH\_OFFSET\_INCL<sub>S</sub> to CF\_SRCH\_OFFSET\_INCL<sub>S</sub>, and SRCH\_WIN\_NGHBR\_INCL<sub>S</sub> to CF\_SRCH\_WIN\_NGHBR\_INCL<sub>S</sub>.
- o The mobile station shall re-enable its transmitter and shall re-enable the fade timer (see 2.6.4.1.8) and reset it for T<sub>5m</sub> seconds. Then, the mobile station shall transmit the Traffic Channel Preamble, as described in 2.1.3.6.2.3 of [2], followed by a *Handoff Completion Message* if P\_REV\_IN\_USE is less than seven or an *Extended Handoff Completion Message* if P\_REV\_IN\_USE is equal to or greater than seven.
- o After starting the handoff timer, upon receiving the first period of (N<sub>3m</sub> × 20) ms with sufficient signal quality (e.g. good frames) on the physical channel corresponding to FPC\_PRI\_CHAN<sub>S</sub>, the mobile station shall resume incrementing TOT\_FRAMES<sub>S</sub>, BAD\_FRAMES<sub>S</sub>, DCCH\_TOT\_FRAMES<sub>S</sub>, and DCCH\_BAD\_FRAMES<sub>S</sub> if applicable as specified in 2.6.4.1.1.
- o If the Target Frequency is same as the Candidate Frequency (TF\_CDMABAND<sub>S</sub> is equal to CF\_CDMABAND<sub>S</sub> and TF\_CDMACH<sub>S</sub> is equal to CF\_CDMACH<sub>S</sub>), then the mobile station shall set PERIODIC\_SEARCH<sub>S</sub> to '0'.
- o If PERIODIC\_SEARCH<sub>S</sub> is equal to '1', the mobile station shall do the following:
  - ◊ The mobile station shall set ALIGN\_TIMING\_USED<sub>S</sub> to '0' and SEARCH\_OFFSET<sub>S</sub> to '000000'.

- 1           ◊ The mobile station shall start a periodic search as described in  
 2           2.6.6.2.8.3.2.
- 3           o The mobile station shall maintain its pilot sets using the procedures  
 4           described in 2.6.6.2.6.

5        2.6.6.2.8.2.1 Restoring the Configuration

6        If the mobile station declares a handoff attempt to be unsuccessful (see 2.6.6.2.8.2), it shall  
 7        perform the following actions:

- 8           • If the handoff timer is enabled, the mobile station shall disable it.
- 9           • The mobile station shall restore the following parameters:
  - 10           – Message encryption mode: If  $SF\_ENCRYPT\_MODE_s$  is equal to '0', the mobile  
 11           station shall turn off message encryption; otherwise, it shall turn on message  
 12           encryption.
  - 13           – Service configuration: The mobile station shall use the service configuration  
 14           stored in  $SF\_SERVICE\_CONFIG_s$  to process Forward and Reverse Traffic  
 15           Channel frames.
  - 16           – The mobile station shall restore the list of calls stored in  $SF\_CALLS_s$ .
  - 17           – Protocol revision level ( $P\_REV_s = SF\_P\_REV_s$ )
  - 18           – Protocol revision level in use on the serving frequency ( $P\_REV\_IN\_USE_s =$   
 19            $SF\_P\_REV\_IN\_USE_s$ )
  - 20           – Service negotiation type ( $SERV\_NEG_s = SF\_SERV\_NEG_s$ )
  - 21           – Long code mask: If  $SF\_PRIVATE\_LCM_s$  is equal to '1', the mobile station shall  
 22           use the private long code mask; otherwise, it shall use the public long code  
 23           mask.
  - 24           – Search window size for the Active Set and Candidate Set  
 25           ( $SRCH\_WIN\_A_s = SF\_SRCH\_WIN\_A_s$ )
  - 26           – Search window size for the Neighbor Set  
 27           ( $SRCH\_WIN\_N_s = SF\_SRCH\_WIN\_N_s$ )
  - 28           – Search window size for the Remaining Set  
 29           ( $SRCH\_WIN\_R_s = SF\_SRCH\_WIN\_R_s$ )
  - 30           – Pilot detection threshold ( $T\_ADD_s = SF\_T\_ADD_s$ )
  - 31           – Pilot drop threshold ( $T\_DROP_s = SF\_T\_DROP_s$ )
  - 32           – Soft slope for the dynamic add and drop threshold ( $SOFT\_SLOPE_s =$   
 33            $SF\_SOFT\_SLOPE_s$ )
  - 34           – Intercept for the dynamic add threshold ( $ADD\_INTERCEPT_s =$   
 35            $SF\_ADD\_INTERCEPT_s$ )
  - 36           – Intercept for the dynamic drop threshold ( $DROP\_INTERCEPT_s =$   
 37            $SF\_DROP\_INTERCEPT_s$ )

- 1     – Active Set versus Candidate Set comparison threshold ( $T_{COMP_S} =$   
2        $SF_{T\_COMP_S}$ )
- 3     – Drop timer value ( $T_{TDROP_S} = SF_{T\_TDROP_S}$ )
- 4     – Frame offset ( $FRAME_{OFFSET_S} = SF_{FRAME\_OFFSET_S}$ )
- 5     – Nominal power setting ( $NOM_{PWR_S} = SF_{NOM\_PWR_S}$ )
- 6     – Extended nominal power setting ( $NOM_{PWR\_EXT_S} = SF_{NOM\_PWR\_EXT_S}$ )
- 7     – Power control step ( $PWR_{CNTL\_STEP_S} = SF_{PWR\_CNTL\_STEP_S}$ )
- 8     – CDMA band class ( $CDMABAND_S = SF_{CDMABAND_S}$ )
- 9     – Frequency assignment ( $CDMACH_S = SF_{CDMACH_S}$ )
- 10    – Active Set (For each pilot in the Serving Frequency Active Set: ( $PILOT\_REC,$   
11       $PWR_{COMB\_IND}$ ))
- 12    – Code channel list ( $CODE\_CHAN\_LIST_S = SF_{CODE\_CHAN\_LIST_S}$ )
- 13   • The mobile station shall tune to the Serving Frequency and resume using the  
14      Serving Frequency Active Set as follows:
- 15      – If the mobile station was processing the Forward Fundamental Channel prior to  
16       tuning to the Candidate Frequency, the mobile station shall resume processing  
17       the Forward Fundamental Channel. If the mobile station was transmitting on  
18       the Reverse Fundamental Channel prior to tuning to the Candidate Frequency,  
19       the mobile station shall resume transmitting on the Reverse Fundamental  
20       Channel.
- 21      – If the mobile station was processing the Forward Dedicated Control Channel  
22       prior to tuning to the Candidate Frequency, the mobile station shall resume  
23       processing the Forward Dedicated Control Channel. If the mobile station was  
24       transmitting on the Reverse Dedicated Control Channel prior to tuning to the  
25       Candidate Frequency, the mobile station shall resume transmitting on the  
26       Reverse Dedicated Control Channel.
- 27      – The mobile station shall not resume transmitting on the Reverse Supplemental  
28       Code Channels and Reverse Supplemental Channels (if any). The mobile station  
29       shall not process on the Forward Supplemental Code Channels and Forward  
30       Supplemental Channels (if any).
- 31      – When the mobile station resumes transmission on the Reverse Traffic Channel,  
32       it shall use the following rules to re-enable its transmitter:
- 33       + If the interval between the time that the mobile station disables its  
34       transmitter and the time that it resumes using the Serving Frequency Active  
35       Set is equal to or greater than ( $N_{2m} \times 20$ ) ms, then the mobile station shall  
36       wait to receive a period of ( $N_{3m} \times 20$ ) ms with sufficient signal quality (e.g.  
37       good frames) on the physical channel corresponding to  $FPC_{PRI\_CHAN_S}$   
38       before it re-enables its transmitter.

- 1       + Otherwise, the mobile station shall re-enable its transmitter no later than  
 2        $N_{3m} \times 20$  ms after the mobile station tunes to the Serving Frequency. The  
 3       mobile station should re-enable its transmitter earlier. After the mobile  
 4       station re-enables its transmitter, the mean output power shall be as  
 5       specified in 2.1.2.4.1 of [2] for a step change in input power. If the mobile  
 6       station re-enables its transmitter earlier than  $N_{3m} \times 20$  ms after it tunes to  
 7       the Serving Frequency, the initial mean output power shall be as specified in  
 8       2.1.2.3.1 of [2], where the initial mean input power estimate is either:  
 9           o within 6 dB of the actual mean input power, or  
 10          o equal to the mean input power before the mobile station tuned to the  
 11           Target Frequency.
- 12       • The mobile station shall enable the fade timer and the handoff drop timers  
 13       corresponding to the pilots in its Active Set and Candidate Set. The mobile station  
 14       shall resume incrementing TOT\_FRAMES<sub>S</sub>, BAD\_FRAMES<sub>S</sub>, DCCH\_TOT\_FRAMES<sub>S</sub>,  
 15       and DCCH\_BAD\_FRAMES<sub>S</sub> if applicable as specified in 2.6.4.1.1.
- 16       • The mobile station shall send a *Candidate Frequency Search Report Message* within  
 17       T<sub>56m</sub> seconds of declaring the handoff attempt to be unsuccessful. The mobile  
 18       station shall report the contents of the *Candidate Frequency Search Report Message*  
 19       as follows:  
 20           – The mobile station shall report the two components of the Target Frequency in  
 21           the CDMA\_FREQ and BAND\_CLASS fields.  
 22           – The mobile station shall report the received power on the Target Frequency and  
 23           on the Serving Frequency in the CF\_TOTAL\_RX\_PWR and SF\_TOTAL\_RX\_PWR  
 24           fields, respectively.  
 25           – For each pilot in the Target Frequency Active Set that measures above  
 26           TF\_T\_ADD<sub>S</sub>, the mobile station shall report its phase and strength in the fields  
 27           PILOT\_PN\_PHASE and PILOT\_STRENGTH, respectively.  
 28           – If the Target Frequency is the same as the Candidate Frequency  
 29           (TF\_CDMABAND<sub>S</sub> is equal to CF\_CDMABAND<sub>S</sub>, and TF\_CDMACH<sub>S</sub> is equal to  
 30           CF\_CDMACH<sub>S</sub>), and is different ~~from~~ from the Serving Frequency  
 31           (TF\_CDMABAND<sub>S</sub> is not equal to SF\_CDMABAND<sub>S</sub> or TF\_CDMACH<sub>S</sub> is not equal  
 32           to SF\_CDMACH<sub>S</sub>), the mobile station shall also report the strength of each pilot  
 33           in the Candidate Frequency Search Set that measures above CF\_T\_ADD<sub>S</sub>.  
 34       • If the Serving Frequency is the same as the Candidate Frequency (SF\_CDMABAND<sub>S</sub>  
 35           is equal to CF\_CDMABAND<sub>S</sub> and SF\_CDMACH<sub>S</sub> is equal to CF\_CDMACH<sub>S</sub>), then the  
 36           mobile station shall set PERIODIC\_SEARCH<sub>S</sub> to '0'.  
 37       • If PERIODIC\_SEARCH<sub>S</sub> is equal to '1' and the Candidate Frequency Search Set is  
 38           not empty, the mobile station shall do the following:  
 39           – The mobile station shall set ALIGN\_TIMING\_USED<sub>S</sub> to '0' and SEARCH\_OFFSET<sub>S</sub>  
 40           to '000000'.

- 1           – The mobile station shall carry out the periodic search procedures described in  
 2           2.6.6.2.8.3.2.

3       2.6.6.2.8.3 Search of Pilots on the CDMA Candidate Frequency

4       If SEARCH\_MODE<sub>s</sub> is equal to '0000', the mobile station shall do the following: If  
 5       PERIODIC\_SEARCH<sub>s</sub> is equal to '0', the mobile station shall search the Candidate  
 6       Frequency Search Set once, as described in 2.6.6.2.8.3.1; otherwise, the mobile station  
 7       shall search the Candidate Frequency Search Set periodically, as described in 2.6.6.2.8.3.2.

8       2.6.6.2.8.3.1 CDMA Candidate Frequency Single Search

9       The mobile station does a single search of the Candidate Frequency Search Set by  
 10      performing the following actions at the action time of the *Candidate Frequency Search  
           Control Message* or the *Candidate Frequency Search Request Message* that started the  
 11      search:

- 13       • If ALIGN\_TIMING\_USED<sub>s</sub> is set to '0', the mobile station shall measure the strength  
         of all pilots in the Candidate Frequency Search Set in one or more visits to the  
         Candidate Frequency, as described in 2.6.6.2.8.3.3.
- 16       • If ALIGN\_TIMING\_USED<sub>s</sub> is set to '1', the mobile station shall measure the strength  
         of all pilots in the Candidate Frequency Search Set in one or more scheduled visits  
         (see below) to the Candidate Frequency, as described in 2.6.6.2.8.3.3.

19       The mobile station shall schedule visits to the Candidate Frequency only at  
 20       $((0.00125 \times \text{SEARCH\_OFFSET}_s) + k \times (\text{SEARCH\_TIME\_RESOLUTION}_s \times$   
 21      *inter\_visit\_time*)) seconds after the action time of the *Candidate Frequency Search  
           Request Message* or the *Candidate Frequency Search Control Message* that started  
 22      the search, where

24            $k =$  an integer between 0 and *max\_num\_visits*, inclusive, where  
 25           *max\_num\_visits* is the value of MAX\_NUM\_VISITS field of the  
 26           last *Candidate Frequency Search Response Message* sent by the  
 27           mobile station,

28       and

29           *inter\_visit\_time* = the value of the INTER\_VISIT\_TIME field of the last *Candidate  
           Frequency Search Response Message* sent by the mobile station.

- 31       • The mobile station shall complete the measurements and send a *Candidate  
           Frequency Search Report Message* within  $((0.00125 \times \text{SEARCH\_OFFSET}_s) +$   
 32      *freshness\_interval*) seconds after the action time of the *Candidate Frequency Search  
           Control Message*, or the *Candidate Frequency Search Request Message*, where  
 33      *freshness\_interval* is determined as follows:  
 34           – If the value of the TOTAL\_OFF\_TIME\_FWD field or of the TOTAL\_OFF\_TIME\_REV  
 35           field of the last *Candidate Frequency Search Response Message* sent by the  
 36           mobile station to the base station is greater than or equal to  $\lceil (T_{70m} - T_{71m}) /$   
 37            $\text{SEARCH\_TIME\_RESOLUTION}_s \rceil$ , then

1                    $\text{freshness\_interval} = (\max(\text{fwd\_time}, \text{rev\_time}) + T_{71m})$  seconds,

2                   where

3                    $\text{fwd\_time} = \text{SEARCH\_TIME\_RESOLUTION}_S \times (\text{value of the}$   
 4                   TOTAL\_OFF\_TIME\_FWD field of the last *Candidate Frequency*  
 5                   *Search Response Message* sent by the mobile station),

6                   and

7                    $\text{rev\_time} = \text{SEARCH\_TIME\_RESOLUTION}_S \times (\text{value of the}$   
 8                   TOTAL\_OFF\_TIME\_REV field of the last *Candidate Frequency*  
 9                   *Search Response Message* sent by the mobile station).

- 10                  – Otherwise,

11                   $\text{freshness\_interval} = T_{70m}$  seconds.

12                  The mobile station shall set the fields of the *Candidate Frequency Search Report*  
 13                  *Message* as follows:

- 14                  – The mobile station shall report the two components of the Candidate Frequency  
                       in the CDMA\_FREQ and BAND\_CLASS fields.
- 16                  – The mobile station shall report the received power on the Candidate Frequency  
                       and on the Serving Frequency in the CF\_TOTAL\_RX\_PWR and  
                       SF\_TOTAL\_RX\_PWR fields, respectively.
- 19                  – For each pilot in the Candidate Frequency Search Set that measures above  
                       CF\_T\_ADD<sub>S</sub>, the mobile station shall report its phase and strength in the fields  
                       PILOT\_PN\_PHASE and PILOT\_STRENGTH, respectively.

#### 22                  2.6.6.2.8.3.2 Candidate Frequency Periodic Search

23                  When the mobile station performs a periodic search, it periodically searches the Candidate  
 24                  Frequency Search Set and reports the results to the base station in the *Candidate*  
 25                  *Frequency Search Report Message*, as described in this section. The mobile station may  
 26                  measure all pilots in the Candidate Frequency Search Set in one visit to the Candidate  
 27                  Frequency, or it may visit the Candidate Frequency several times in a search period, each  
 28                  time measuring all or some of the pilots in the Candidate Frequency Search Set, as  
 29                  described in 2.6.6.2.8.3.3.

30                  If SF\_TOTAL\_EC\_THRESH<sub>S</sub> is not equal to ‘11111’, while tuned to the Serving Frequency  
 31                  (specified by CDMACH<sub>S</sub> and CDMABAND<sub>S</sub>), the mobile station shall measure the total  
 32                  received power spectral density, in mW/1.23 MHz, on the Serving Frequency at least once  
 33                  every 20 ms frame. The mobile station shall maintain the average of the spectral density  
 34                  (*spec\_density*) over the last N<sub>12m</sub> frames.

35                  (In the following, (E<sub>C</sub>/I<sub>O</sub>)<sub>total</sub> is the total E<sub>C</sub>/I<sub>O</sub> of the pilots in the Active Set, measured as  
 36                  specified in 2.6.6.2.2, and *total\_ec* is defined as (10 × log<sub>10</sub> ((E<sub>C</sub>/I<sub>O</sub>)<sub>total</sub> × *spec\_density*)).)

37                  The mobile station shall maintain a periodic search timer as follows:

- When the mobile station starts a periodic search, it shall set the periodic search timer to the value in Table 2.6.6.2.8.3.2-1 corresponding to SEARCH\_PERIOD<sub>S</sub> and shall enable the timer.
  - If the periodic search is started by a *Candidate Frequency Search Request Message* or a *Candidate Frequency Search Control Message*, then the mobile station shall start the periodic search ( $0.00125 \times \text{SEARCH\_OFFSET}_S$ ) seconds after the action time of the *Candidate Frequency Search Request Message* or the *Candidate Frequency Search Control Message* that started the search.
  - If the periodic search is started following successful or unsuccessful handoff attempt, the mobile station shall start the periodic search:
    - + Upon sending the *Handoff Completion Message* or *Extended Handoff Completion Message*, in the case that the handoff was successful.
    - + Upon sending the *Candidate Frequency Search Report Message*, in the case that the handoff was unsuccessful.
- When the periodic search timer expires, the mobile station shall reset the periodic search timer to the value in Table 2.6.6.2.8.3.2-1 corresponding to SEARCH\_PERIOD<sub>S</sub> and shall re-enable the timer.
- If ALIGN\_TIMING\_USED<sub>S</sub> is set to ‘0’, SF\_TOTAL\_EC\_THRESH<sub>S</sub> is not equal to ‘11111’ and SF\_TOTAL\_EC\_IO\_THRESH<sub>S</sub> is equal to ‘11111’, the mobile station shall perform the following actions once per frame:
  - Disable the periodic search timer if *total\_ec* is not less than  $(-120 + 2 \times \text{SF\_TOTAL\_EC\_THRESH}_S)$ .
  - Reset the expiration time of the periodic search timer to the value in Table 2.6.6.2.8.3.2-1 corresponding to SEARCH\_PERIOD<sub>S</sub>, and re-enable the timer if the following conditions are true:
    - + the periodic search timer is disabled, and
    - + *total\_ec* is less than  $(-120 + 2 \times \text{SF\_TOTAL\_EC\_THRESH}_S)$ .
- If ALIGN\_TIMING\_USED<sub>S</sub> is set to ‘0’, SF\_TOTAL\_EC\_THRESH<sub>S</sub> is equal to ‘11111’ and SF\_TOTAL\_EC\_IO\_THRESH<sub>S</sub> is not equal to ‘11111’, the mobile station shall perform the following actions once per frame:
  - Disable the periodic search timer if  $(-20 \times \log_{10} (E_c/I_o)_{\text{total}})$  is not greater than SF\_TOTAL\_EC\_IO\_THRESH<sub>S</sub>.
  - Reset the expiration time of the periodic search timer to the value in Table 2.6.6.2.8.3.2-1 corresponding to SEARCH\_PERIOD<sub>S</sub>, and re-enable the timer if the following conditions are true:
    - + the periodic search timer is disabled, and
    - +  $(-20 \times \log_{10} (E_c/I_o)_{\text{total}})$  is greater than SF\_TOTAL\_EC\_IO\_THRESH<sub>S</sub>.

- If ALIGN\_TIMING\_USED<sub>S</sub> is set to '0', SF\_TOTAL\_EC\_THRESH<sub>S</sub> is not equal to '11111' and SF\_TOTAL\_EC\_IO\_THRESH<sub>S</sub> is not equal to '11111', the mobile station shall perform the following actions once per frame:
  - Disable the periodic search timer if the following conditions are true:
    - +  $total\_ec$  is not less than  $(-120 + 2 \times SF\_TOTAL\_EC\_THRESH_S)$ , and
    - +  $(-20 \times \log_{10} (E_c/I_o)_{total})$  is not greater than SF\_TOTAL\_EC\_IO\_THRESH<sub>S</sub>.
  - Reset the expiration time of the periodic search timer to the value in Table 2.6.6.2.8.3.2-1 corresponding to SEARCH\_PERIOD<sub>S</sub>, and re-enable the timer if the following conditions are true:
    - + the periodic search timer is disabled, and
    - +  $total\_ec$  is less than  $(-120 + 2 \times SF\_TOTAL\_EC\_THRESH_S)$ , or  $(-20 \times \log_{10} (E_c/I_o)_{total})$  is greater than SF\_TOTAL\_EC\_IO\_THRESH<sub>S</sub>.
- The mobile station shall maintain the periodic search timer independent of the total  $E_c$  and the total  $E_c/I_o$  of the pilots in the Serving Frequency Active Set, if any of the following conditions is true:
  - ALIGN\_TIMING\_USED<sub>S</sub> is set to '1', or
  - SF\_TOTAL\_EC\_THRESH<sub>S</sub> is equal to '11111' and SF\_TOTAL\_EC\_IO\_THRESH<sub>S</sub> is equal to '11111'.

**Table 2.6.6.2.8.3.2-1. Search Period Values**

| <b>SEARCH_PERIOD<sub>S</sub></b> | <b>Search Period (seconds)</b> | <b>SEARCH_PERIOD<sub>S</sub></b> | <b>Search Period (seconds)</b> |
|----------------------------------|--------------------------------|----------------------------------|--------------------------------|
| 0                                | 0.48                           | 8                                | 30                             |
| 1                                | 0.96                           | 9                                | 40                             |
| 2                                | 2                              | 10                               | 50                             |
| 3                                | 2.96                           | 11                               | 60                             |
| 4                                | 4                              | 12                               | 80                             |
| 5                                | 4.96                           | 13                               | 100                            |
| 6                                | 10                             | 14                               | 150                            |
| 7                                | 20                             | 15                               | 200                            |

If the periodic search timer is enabled, the mobile station shall perform the following actions before the timer expires:

- If ALIGN\_TIMING\_USED<sub>S</sub> is set to ‘0’, the mobile station shall measure the strength of all pilots in the Candidate Frequency Search Set at least once in one or more visits to the Candidate Frequency, as described in 2.6.6.2.8.3.3.
- If ALIGN\_TIMING\_USED<sub>S</sub> is set to ‘1’, the mobile station shall measure the strength of all pilots in the Candidate Frequency Search Set in one or more scheduled visits (see below) to the Candidate Frequency, as described in 2.6.6.2.8.3.3.

The mobile station shall schedule visits to the Candidate Frequency only at  $((0.00125 \times \text{SEARCH\_OFFSET}_S) + k \times (\text{SEARCH\_TIME\_RESOLUTION}_S \times \text{inter\_visit\_time}))$  seconds after the action time of the *Candidate Frequency Search Request Message* or the *Candidate Frequency Search Control Message* that started the search, where

$k =$  an integer between 0 and *max\_num\_visits*, inclusive, where  
*max\_num\_visits* is the value of MAX\_NUM\_VISITS field of the last *Candidate Frequency Search Response Message* sent by the mobile station,

and

*inter\_visit\_time* = the value of the INTER\_VISIT\_TIME field of the last *Candidate Frequency Search Response Message* sent by the mobile station.

- The mobile station shall abort a scheduled visit to the Candidate Frequency if at the scheduled time, one or both of the following conditions hold:
  - + SF\_TOTAL\_EC\_THRESH<sub>S</sub> is not equal to ‘11111’ and *total\_ec* is not less than  $(-120 + 2 \times \text{SF\_TOTAL\_EC\_THRESH}_S)$ , or
  - + SF\_TOTAL\_EC\_IO\_THRESH<sub>S</sub> is not equal to ‘11111’ and  $(-20 \times \log_{10} (E_c/I_o)_{\text{total}})$  is not greater than SF\_TOTAL\_EC\_IO\_THRESH<sub>S</sub>.
- If the mobile station aborts a scheduled visit during a search period, it may abort all remaining scheduled visits in that search period.
- The mobile station shall send a *Candidate Frequency Search Report Message* if MIN\_TOTAL\_PILOT\_EC\_IO<sub>S</sub> is equal to ‘00000’ or if  $(-20 \times \log_{10} (E_c/I_o)_{\text{total}})$  is ~~not~~ less than or equal to MIN\_TOTAL\_PILOT\_EC\_IO<sub>S</sub>, where  $(E_c/I_o)_{\text{total}}$  is the sum of  $E_c/I_o$  for all those pilots that measure above CF\_T\_ADD<sub>S</sub> in the current search period.

The mobile station shall report the contents of the *Candidate Frequency Search Report Message* as follows:

- The mobile station shall report the two components of the Candidate Frequency in the CDMA\_FREQ and BAND\_CLASS fields.
- The mobile station shall report the received power on the Candidate Frequency and on the Serving Frequency in the CF\_TOTAL\_RX\_PWR and SF\_TOTAL\_RX\_PWR fields, respectively.

- For each pilot in the Candidate Frequency Search Set that measures above CF\_T\_ADD<sub>s</sub>, the mobile station shall report its phase and strength in the fields PILOT\_PN\_PHASE and PILOT\_STRENGTH, respectively.
- The mobile station shall ensure that the strength measurement for all pilots in the Candidate Frequency Search Set were obtained within *freshness\_interval* before the *Candidate Frequency Search Report Message* is sent, where *freshness\_interval* is determined as follows:
  - If the value of the TOTAL\_OFF\_TIME\_FWD field or of the TOTAL\_OFF\_TIME\_REV field of the last *Candidate Frequency Search Response Message* sent by the mobile station to the base station is greater than or equal to  $\lceil(T_{70m} - T_{71m})/\text{SEARCH\_TIME\_RESOLUTION}_s \rceil$ , then
 
$$\text{freshness\_interval} = (\max(fwd\_time, rev\_time)) + T_{71m}$$
 seconds,
 where
 
$$fwd\_time = \text{SEARCH\_TIME\_RESOLUTION}_s \times (\text{value of the TOTAL\_OFF\_TIME\_FWD field of the last } \textit{Candidate Frequency Search Response Message} \text{ sent by the mobile station}),$$
 and
 
$$rev\_time = \text{SEARCH\_TIME\_RESOLUTION}_s \times (\text{value of the TOTAL\_OFF\_TIME\_REV field of the last } \textit{Candidate Frequency Search Response Message} \text{ sent by the mobile station}).$$
  - Otherwise,

### 2.6.6.2.8.3.3 Candidate Frequency Pilot Measurements

The mobile station measures the strength of all pilots in the Candidate Frequency Search Set in one or more visits to the Candidate Frequency. The mobile station shall perform the following actions each time it visits the Candidate Frequency to measure pilot strengths:

- If the mobile station is processing the Forward Fundamental Channel, the mobile station shall stop processing the Forward Fundamental [Code](#)-Channel. If the mobile station is transmitting on the Reverse Fundamental Channel, the mobile station shall stop transmitting on the Reverse Fundamental Channel.
- If the mobile station is processing the Forward Dedicated Control Channel, the mobile station shall stop processing the Forward Dedicated Control Channel. If the mobile station is transmitting on the Reverse Dedicated Control Channel, the mobile station shall stop transmitting on the Reverse Dedicated Control Channel.
- The mobile station shall stop processing the Forward Supplemental Code Channels and Forward Supplemental Channels (if any). The mobile station shall stop transmitting on the Reverse Supplemental Code Channels and Reverse Supplemental Channels (if any).

- The mobile station shall disable the fade timer (see 2.6.4.1.8) and the handoff drop timers corresponding to its current Active Set and Candidate Set (see 2.6.6.2.3), and shall suspend incrementing TOT\_FRAMESS<sub>S</sub>, BAD\_FRAMESS<sub>S</sub>, DCCH\_TOT\_FRAMESS<sub>S</sub>, DCCH\_BAD\_FRAMESS<sub>S</sub>, SCH\_TOT\_FRAMESS<sub>S</sub>, and SCH\_BAD\_FRAMESS<sub>S</sub> if applicable (see 2.6.4.1.1).
  - The mobile station shall lock the accumulation of valid level changes in the closed loop mean output power and shall ignore received power control bits related to the period that the transmitter is disabled (see 2.1.2.3.1 of [2]).
  - The mobile station shall store the following parameters from its current configuration:
    - CDMA band class ( $SF\_CDMABAND_S = CDMABAND_S$ )
    - Frequency Assignment ( $SF\_CDMACH_S = CDMACH_S$ )
    - Pilot detection threshold ( $SF\_T\_ADD_S = T\_ADD_S$ )
  - The mobile station shall set the following parameters:
    - $CDMABAND_S = CF\_CDMABAND_S$
    - $CDMACH_S = CF\_CDMACH_S$
    - $T\_ADD_S = CF\_T\_ADD_S$
- The mobile station shall tune to the Candidate Frequency.
- The mobile station shall not change its time reference (see 2.1.5 of [2]) until it resumes using the Serving Frequency Active Set, as described below.
  - The mobile station shall measure the mean input power on the Candidate Frequency ( $cand\_freq\_pwr$ , in dBm / 1.23 MHz), and may use  $cand\_freq\_pwr$  along with the measurement of the mean input power on the Serving Frequency ( $avg\_serving\_freq\_pwr$ , in dBm / 1.23 MHz) in the search procedure as follows:
    - If  $DIFF\_RX\_PWR\_THRESH_S$  is not equal to '00000', and ( $cand\_freq\_pwr - avg\_serving\_freq\_pwr$ ) is less than  $(-30 + 2 \times DIFF\_RX\_PWR\_THRESH_S)$  dB, the mobile station may terminate the search for pilots in the current visit to the Candidate Frequency.
    - If  $DIFF\_RX\_PWR\_THRESH_S$  is equal to '00000', the mobile station does not use the power measurements in the search procedure, or ( $cand\_freq\_pwr - avg\_serving\_freq\_pwr$ ) is not less than  $(-30 + 2 \times DIFF\_RX\_PWR\_THRESH_S)$  dB, the mobile station shall measure  $E_C/I_0$  for all or some of the pilots in its Candidate Frequency Search Set, using the search procedures specified in 2.6.6.2.2.
  - The mobile station shall restore the following parameters:
    - Pilot detection threshold ( $T\_ADD_S = SF\_T\_ADD_S$ )
    - CDMA band class ( $CDMABAND_S = SF\_CDMABAND_S$ )
    - Frequency assignment ( $CDMACH_S = SF\_CDMACH_S$ )

- 1     • The mobile station shall tune to the Serving Frequency and shall resume using the  
2       Serving Frequency Active Set as follows:
  - 3         – If the mobile station was processing the Forward Fundamental Channel prior to  
4           tuning to the Candidate Frequency, the mobile station shall resume processing  
5           the Forward Fundamental Channel. If the mobile station was transmitting on  
6           the Reverse Fundamental Channel prior to tuning to the Candidate Frequency,  
7           the mobile station shall resume transmitting on the Reverse Fundamental  
8           Channel.
  - 9         – If the mobile station was processing the Forward Dedicated Control Channel  
10          prior to tuning to the Candidate Frequency, the mobile station shall resume  
11          processing the Forward Dedicated Control Channel. If the mobile station was  
12          transmitting on the Reverse Dedicated Control Channel prior to tuning to the  
13          Candidate Frequency, the mobile station shall resume transmitting on the  
14          Reverse Dedicated Control Channel.
  - 15         – If the Forward Supplemental Code Channels and Forward Supplemental  
16          Channels assignment has not expired, the mobile station shall resume  
17          processing the Forward Supplemental Code Channels and Forward  
18          Supplemental Channels (if any). If the Reverse Supplemental Code Channel and  
19          Reverse Supplemental Channels assignment has not expired, the mobile station  
20          may resume transmitting on the Reverse Supplemental Code Channels and  
21          Reverse Supplemental Channels (if any).
  - 22         – When the mobile station resumes transmission on the Reverse Traffic Channel,  
23          it shall use the following rules to re-enable its transmitter:
    - 24             + If the interval between the time that the mobile station disables its  
25               transmitter and the time that it resumes using the Serving Frequency Active  
26               Set is equal to or greater than  $(N_{2m} \times 20)$  ms, then the mobile station shall  
27               wait to receive a period of  $(N_{3m} \times 20)$  ms with sufficient signal quality (e.g.  
28               good frames) on the physical channel corresponding to FPC\_PRI\_CHANs  
29               before it re-enables its transmitter.
    - 30             + Otherwise, the mobile station shall re-enable its transmitter no later than  
31                $N_{3m} \times 20$  ms after the mobile station tunes to the Serving Frequency. The  
32               mobile station should re-enable its transmitter earlier. After the mobile  
33               station re-enables its transmitter, the mean output power shall be as  
34               specified in 2.1.2.4.1 for a step change in input power. If the mobile station  
35               re-enables its transmitter earlier than  $N_{3m} \times 20$  ms after it tunes to the  
36               Serving Frequency, the initial mean output power shall be as specified in  
37               2.1.2.3.1 of [2], where the initial mean input power estimate is either:
      - 38                     o within 6 dB of the actual mean input power, or
      - 39                     o equal to the mean input power before the mobile station tuned to the  
40                     Target Frequency.

- The mobile station shall enable the fade timer and the handoff drop timers corresponding to the pilots in its Active Set and Candidate Set. The mobile station shall resume incrementing TOT\_FRAMESS<sub>s</sub>, BAD\_FRAMESS<sub>s</sub>, DCCH\_TOT\_FRAMESS<sub>s</sub>, DCCH\_BAD\_FRAMESS<sub>s</sub>, SCH\_TOT\_FRAMESS<sub>s</sub>, and SCH\_BAD\_FRAMESS<sub>s</sub> if applicable as specified in 2.6.4.1.8.

#### 2.6.6.2.8.3.4 Aborting CDMA Candidate Frequency Periodic Search

When the mobile station aborts a periodic search, it shall do the following:

- The mobile station shall cancel any remaining visits to the Candidate Frequency in the current search period, and shall not send a *Candidate Frequency Search Report Message* for the current search period.
- The mobile station shall disable the periodic search timer.

#### 2.6.6.2.9 CDMA-to-Analog Handoff

The base station directs the mobile station to perform a CDMA-to-Analog handoff by sending an *Analog Handoff Direction Message*. If the mobile station has narrow analog capability, the base station may direct the handoff to a narrow analog channel.

If the mobile station supports analog operation in the requested band class, the mobile station shall set DTX<sub>s</sub> to '00' and store the following parameters from the *Analog Handoff Direction Message*.

- System identification (SID<sub>s</sub> = SID<sub>r</sub>)
- Voice mobile station attenuation code (VMAC<sub>s</sub> = VMAC<sub>r</sub>)
- Analog voice channel number (ANALOG\_CHAN<sub>s</sub> = ANALOG\_CHAN<sub>r</sub>)
- SAT color code (SCC<sub>s</sub> = SCC<sub>r</sub>)
- Message encryption mode indicator (MEM<sub>s</sub> = MEM<sub>r</sub>)
- Analog voice channel type (AN\_CHAN\_TYPE<sub>s</sub> = AN\_CHAN\_TYPE<sub>r</sub>)
- Digital supervisory audio color code (DSCC<sub>s</sub> = DSCC\_MSBR × 4 + SCC<sub>r</sub>)

If the mobile station does not support analog operation in the requested band class, the mobile station shall discard the message and send a *Mobile Station Reject Order* with the ORDQ field set to '00000110' (capability not supported by the mobile station).

At the action time specified by the *Analog Handoff Direction Message* (see 2.6.4.1.5), the mobile station shall disable its transmitter. The mobile station shall enable its transmitter on the wide analog voice channel or optional narrow analog voice channel within T<sub>63m</sub> seconds after the action time.

#### 2.6.6.2.10 Search of Analog Frequencies

If SEARCH\_MODE<sub>s</sub> is equal to '0001', and the mobile station supports analog searching, the mobile station shall do the following: If PERIODIC\_SEARCH<sub>s</sub> is equal to '0', the mobile station shall search the Candidate Analog Frequency Search Set once, as described in

1    2.6.6.2.10.1; otherwise, the mobile station shall search the Candidate Frequency Analog  
 2    Search Set periodically, as described in 2.6.6.2.10.2.

3    2.6.6.2.10.1 Analog Frequencies Single Search

4    The mobile station does a single search of the Candidate Frequency Analog Search Set by  
 5    performing the following actions at the action time of the *Candidate Frequency Search*  
 6    *Control Message* or the *Candidate Frequency Search Request Message* that started the  
 7    search:

- 8    • If ALIGN\_TIMING\_USED<sub>S</sub> is set to '0', the mobile station shall measure the strength  
 9       of all analog frequencies in the Candidate Frequency Analog Search Set in one or  
 10   more visits away from the Serving Frequency, as described in 2.6.6.2.10.3.
- 11   • If ALIGN\_TIMING\_USED<sub>S</sub> is set to '1', the mobile station shall measure the strength  
 12      of analog frequencies in the Candidate Frequency Analog Search Set in one or more  
 13   scheduled visits (see below) away from the Serving Frequency, as described in  
 14   2.6.6.2.10.3.

15   The mobile station shall schedule visits away from the Serving Frequency only at  
 16    $((0.00125 \times \text{SEARCH\_OFFSET}_S) + k \times (\text{SEARCH\_TIME\_RESOLUTION}_S \times$   
 17   *inter\_visit\_time*)) seconds after the action time of the *Candidate Frequency Search*  
 18   *Request Message* or the *Candidate Frequency Search Control Message* that started  
 19   the search, where

20          $k =$  an integer between 0 and *max\_num\_visits*, inclusive, where  
 21         *max\_num\_visits* is the value of MAX\_NUM\_VISITS field of the  
 22   last *Candidate Frequency Search Response Message* sent by the  
 23   mobile station,

24   and

25         *inter\_visit\_time* = the value of the INTER\_VISIT\_TIME field of the last *Candidate*  
 26         *Frequency Search Response Message* sent by the mobile station.

- 27   • The mobile station shall complete the measurements and send a *Candidate*  
 28         *Frequency Search Report Message* within  $((0.00125 \times \text{SEARCH\_OFFSET}_S) +$   
 29         *freshness\_interval*) seconds after the action time of the *Candidate Frequency Search*  
 30         *Control Message* or the *Candidate Frequency Search Request Message*, where  
 31         *freshness\_interval* is determined as follows:
  - 32         – If the value of the TOTAL\_OFF\_TIME\_FWD field or of the TOTAL\_OFF\_TIME\_REV  
 33         field of the last *Candidate Frequency Search Response Message* sent by the  
 34         mobile station to the base station is greater than or equal to  $\lceil (T_{70m} - T_{71m}) /$   
 35         *SEARCH\_TIME\_RESOLUTION\_S*  $\rceil$ , then

36         *freshness\_interval* =  $(\max(fwd\_time, rev\_time) + T_{71m})$  seconds,

37   where

38         *fwd\_time* = *SEARCH\_TIME\_RESOLUTION\_S*  $\times$  (value of the  
 39         TOTAL\_OFF\_TIME\_FWD field of the last *Candidate Frequency*  
 40         *Search Response Message* sent by the mobile station),

1 and

2  $rev\_time = \text{SEARCH\_TIME\_RESOLUTION}_S \times (\text{value of the}$   
 3                     $\text{TOTAL\_OFF\_TIME\_REV field of the last } Candidate Frequency$   
 4                     $Search Response Message sent by the mobile station}).$

- 5     – Otherwise,

6         $freshness\_interval = T_{70m}$  seconds.

7     2.6.6.2.10.2 Analog Frequencies Periodic Search

8     When the mobile station performs a periodic search, it periodically searches the Candidate  
 9     Frequency Analog Search Set, and reports the results to the base station in the *Candidate*  
 10    *Frequency Search Report Message*, as described in this section. The mobile station may  
 11    measure all analog frequencies in the Candidate Frequency Analog Search Set in one visit  
 12    away from the Serving Frequency, or it may make multiple visits in a search period, each  
 13    time measuring all or some of the analog frequencies in the Candidate Frequency Analog  
 14    Search Set, as described in 2.6.6.2.10.3.

15    If SF\_TOTAL\_EC\_THRESH<sub>S</sub> is not equal to '11111', while tuned to the Serving Frequency  
 16    (specified by CDMACH<sub>S</sub> and CDMABAND<sub>S</sub>), the mobile station shall measure the total  
 17    received power spectral density, in mW/1.23 MHz, on the Serving Frequency at least once  
 18    every 20 ms frame. The mobile station shall maintain the average of the spectral density  
 19    (*spec\_density*) over the last N<sub>12m</sub> frames.

20    (In the following, (E<sub>c</sub>/I<sub>o</sub>)<sub>total</sub> is the total E<sub>c</sub>/I<sub>o</sub> of the pilots in the Active Set, measured as  
 21    specified in 2.6.6.2.2, and *total\_ec* is defined as  $(10 \times \log_{10} ((E_c/I_o)_{total} \times spec\_density))$ .)

22    The mobile station shall maintain a periodic search timer as follows:

- 23     • When the mobile station starts a periodic search, it shall set the periodic search  
 24        timer to the value in Table 2.6.6.2.8.3.2-1 corresponding to SEARCH\_PERIOD<sub>S</sub> and  
 25        shall enable the timer.
  - 26        – If the periodic search is started by a *Candidate Frequency Search Request*  
 27          *Message* or a *Candidate Frequency Search Control Message*, then the mobile  
 28          station shall begin the periodic search  $(0.00125 \times \text{SEARCH\_OFFSET}_S)$  seconds  
 29          after the action time of the *Candidate Frequency Search Request Message* or the  
 30          *Candidate Frequency Search Control Message* that started the search.
  - 31        – If the periodic search is started following successful or unsuccessful handoff  
 32          attempt, the mobile station shall start the periodic search:
    - 33           + Upon sending the *Handoff Completion Message* or *Extended Handoff*  
 34              *Completion Message*, in the case that the handoff was successful.
    - 35           + Upon sending the *Candidate Frequency Search Report Message*, in the case  
 36              that the handoff was unsuccessful.
- 37     • When the periodic search timer expires, the mobile station shall reset the periodic  
 38        search timer to the value in Table 2.6.6.2.8.3.2-1 corresponding to  
 39        SEARCH\_PERIOD<sub>S</sub> and shall re-enable the timer.

- If ALIGN\_TIMING\_USED<sub>S</sub> is set to '0', SF\_TOTAL\_EC\_THRESH<sub>S</sub> is not equal to '11111' and SF\_TOTAL\_EC\_IO\_THRESH<sub>S</sub> is equal to '11111', the mobile station shall perform the following actions once per frame:
  - Disable the periodic search timer if *total\_ec* is not less than  $(-120 + 2 \times \text{SF\_TOTAL\_EC\_THRESH}_S)$ .
  - Reset the expiration time of the periodic search timer to the value in Table 2.6.6.2.8.3.2-1 corresponding to SEARCH\_PERIOD<sub>S</sub>, and re-enable the timer if the following conditions are true:
    - + the periodic search timer is disabled, and
    - + *total\_ec* is less than  $(-120 + 2 \times \text{SF\_TOTAL\_EC\_THRESH}_S)$ .
- If ALIGN\_TIMING\_USED<sub>S</sub> is set to '0', SF\_TOTAL\_EC\_THRESH<sub>S</sub> is equal to '11111' and SF\_TOTAL\_EC\_IO\_THRESH<sub>S</sub> is not equal to '11111', the mobile station shall perform the following actions once per frame:
  - Disable the periodic search timer if  $(-20 \times \log_{10} (E_c/I_o)_{\text{total}})$  is not greater than SF\_TOTAL\_EC\_IO\_THRESH<sub>S</sub>.
  - Reset the expiration time of the periodic search timer to the value in Table 2.6.6.2.8.3.2-1 corresponding to SEARCH\_PERIOD<sub>S</sub>, and re-enable the timer if the following conditions are true:
    - + the periodic search timer is disabled, and
    - +  $(-20 \times \log_{10} (E_c/I_o)_{\text{total}})$  is greater than SF\_TOTAL\_EC\_IO\_THRESH<sub>S</sub>.
- If ALIGN\_TIMING\_USED<sub>S</sub> is set to '0', SF\_TOTAL\_EC\_THRESH<sub>S</sub> is not equal to '11111' and SF\_TOTAL\_EC\_IO\_THRESH<sub>S</sub> is not equal to '11111', the mobile station shall perform the following actions once per frame:
  - Disable the periodic search timer if the following conditions are true:
    - + *total\_ec* is not less than  $(-120 + 2 \times \text{SF\_TOTAL\_EC\_THRESH}_S)$ , and
    - +  $(-20 \times \log_{10} (E_c/I_o)_{\text{total}})$  is not greater than SF\_TOTAL\_EC\_IO\_THRESH<sub>S</sub>.
  - Reset the expiration time of the periodic search timer to the value in Table 2.6.6.2.8.3.2-1 corresponding to SEARCH\_PERIOD<sub>S</sub>, and re-enable the timer if the following conditions are true:
    - + the periodic search timer is disabled, and
    - + *total\_ec* is less than  $(-120 + 2 \times \text{SF\_TOTAL\_EC\_THRESH}_S)$ , or
    - +  $(-20 \times \log_{10} (E_c/I_o)_{\text{total}})$  is greater than SF\_TOTAL\_EC\_IO\_THRESH<sub>S</sub>.
- The mobile station shall maintain the periodic search timer independent of the total E<sub>C</sub> and the total E<sub>C</sub>/I<sub>O</sub> of the pilots in the Serving Frequency Active Set, if any of the following conditions is true:
  - ALIGN\_TIMING\_USED<sub>S</sub> is set to '1', or

- 1       – SF\_TOTAL\_EC\_THRESH<sub>S</sub> is equal to ‘11111’ and SF\_TOTAL\_EC\_IO\_THRESH<sub>S</sub> is  
 2       equal to ‘11111’.

3       If the periodic search timer is enabled, the mobile station shall perform the following  
 4       actions before the timer expires:

- 5       • If ALIGN\_TIMING\_USED<sub>S</sub> is set to ‘0’, the mobile station shall measure the strength  
 6       of all analog frequencies in the Candidate Frequency Analog Search Set at least once  
 7       in one or more visits away from the Serving Frequency, as described in 2.6.6.2.10.3.
- 8       • If ALIGN\_TIMING\_USED<sub>S</sub> is set to ‘1’, the mobile station shall measure the strength  
 9       of analog frequencies in the Candidate Frequency Analog Search Set in one or more  
 10      scheduled visits (see below) away from the Serving Frequency, as described in  
 11      2.6.6.2.10.3.

12      The mobile station shall schedule visits away from the Serving Frequency only at  
 13       $((0.00125 \times \text{SEARCH\_OFFSET}_S) + k \times (\text{SEARCH\_TIME\_RESOLUTION}_S \times$   
 14      *inter\_visit\_time*) seconds after the action time of the *Candidate Frequency Search Request Message* or the *Candidate Frequency Search Control Message* that started  
 15      the search, where

16       $k =$  an integer between 0 and *max\_num\_visits*, inclusive, where  
 17      *max\_num\_visits* is the value of MAX\_NUM\_VISITS field of the  
 18      last *Candidate Frequency Search Response Message* sent by the  
 19      mobile station,

20      and

21      *inter\_visit\_time* = the value of the INTER\_VISIT\_TIME field of the last *Candidate Frequency Search Response Message* sent by the mobile station.

- 22       – The mobile station shall abort a scheduled visit away from the Serving  
 23       Frequency if at the scheduled time, one or both of the following conditions hold:
  - 24           + SF\_TOTAL\_EC\_THRESH<sub>S</sub> is not equal to ‘11111’ and *total\_ec* is not less than  
 25            $(-120 + 2 \times \text{SF\_TOTAL\_EC\_THRESH}_S)$ , or
  - 26           + SF\_TOTAL\_EC\_IO\_THRESH<sub>S</sub> is not equal to ‘11111’ and  $(-20 \times \log_{10} (E_C/I_0)_{\text{total}})$  is not greater than SF\_TOTAL\_EC\_IO\_THRESH<sub>S</sub>.
- 27       – If the mobile station aborts a scheduled visit during a search period, it may  
 28       abort all remaining scheduled visits in that search period.
- 29       • The mobile station shall set the fields of the *Candidate Frequency Search Report Message* as follows: The mobile station shall report the received power on the  
 30       Serving Frequency in the TOTAL\_RX\_PWR\_SF field. For each frequency in the  
 31       Candidate Frequency Analog Search Set, the mobile station shall report its  
 32       frequency and strength in the fields ANALOG\_FREQ and SIGNAL\_STRENGTH,  
 33       respectively.

- 1     • The mobile station shall ensure that the strength measurements for all analog  
 2       frequencies in the Candidate Frequency Analog Search Set were obtained within  
 3        $freshness\_interval$  before the *Candidate Frequency Search Report Message* is sent,  
 4       where  $freshness\_interval$  is determined as follows:  
 5           – If the value of the TOTAL\_OFF\_TIME\_FWD field or of the TOTAL\_OFF\_TIME\_REV  
 6           field of the last *Candidate Frequency Search Response Message* sent by the  
 7           mobile station to the base station is greater than or equal to  $\lceil (T_{70m} - T_{71m}) /$   
 8           SEARCH\_TIME\_RESOLUTION<sub>S</sub>  $\rceil$ , then

$$9 \quad freshness\_interval = (\max(fwd\_time, rev\_time) + T_{71m}) \text{ seconds,}$$

10 where

$$11 \quad fwd\_time = \text{SEARCH\_TIME\_RESOLUTION}_S \times (\text{value of the} \\ 12 \quad \text{TOTAL\_OFF\_TIME\_FWD field of the last } Candidate Frequency \\ 13 \quad \text{Search Response Message sent by the mobile station}),$$

14 and

$$15 \quad rev\_time = \text{SEARCH\_TIME\_RESOLUTION}_S \times (\text{value of the} \\ 16 \quad \text{TOTAL\_OFF\_TIME\_REV field of the last } Candidate Frequency \\ 17 \quad \text{Search Response Message sent by the mobile station}).$$

- 18           – Otherwise,

$$19 \quad freshness\_interval = T_{70m} \text{ seconds.}$$

#### 20     2.6.6.2.10.3 Analog Frequency Measurements

21     The mobile station measures the strength of all analog frequencies in the Candidate  
 22     Frequency Analog Search Set in one or more visits away from the Serving Frequency. The  
 23     mobile station shall perform the following actions during each visit away from the Serving  
 24     Frequency to measure analog frequency signal strengths:

- 25       • If the mobile station is processing the Forward Fundamental Channel, the mobile  
 26           station shall stop processing the Forward Fundamental Channel. If the mobile  
 27           station is transmitting on the Reverse Fundamental Channel, the mobile station  
 28           shall stop transmitting on Reverse Fundamental Channel.
- 29       • If the mobile station is processing the Forward Dedicated Control Channel, the  
 30           mobile station shall stop processing Forward Dedicated Control Channel. If the  
 31           mobile station is transmitting on the Reverse Dedicated Control Channel, the mobile  
 32           station shall stop transmitting on Reverse Dedicated Control Channel.
- 33       • The mobile station shall stop processing the Forward Supplemental Code Channels  
 34           and Forward Supplemental Channels (if any). The mobile station shall stop  
 35           transmitting on the Reverse Supplemental Code Channels and Reverse  
 36           Supplemental Channels (if any).

- 1     • The mobile station shall disable the fade timer (see 2.6.4.1.8) and the handoff drop  
2       timers corresponding to its current Active Set and Candidate Set (see 2.6.6.2.3), and  
3       shall suspend incrementing TOT\_FRAMESS<sub>S</sub>, BAD\_FRAMESS<sub>S</sub>, DCCH\_TOT\_FRAMESS<sub>S</sub>,  
4       DCCH\_BAD\_FRAMESS<sub>S</sub>, SCH\_TOT\_FRAMESS<sub>S</sub>, and SCH\_BAD\_FRAMESS<sub>S</sub> if applicable  
5       (see 2.6.4.1.1).
- 6     • The mobile station shall lock the accumulation of valid level changes in the closed  
7       loop mean output power and shall ignore received power control bits related to the  
8       period that the transmitter is disabled (see [2]).
- 9     • The mobile station shall tune to one of the analog frequencies in the Candidate  
10      Frequency Analog Search Set, and shall measure the mean input power on the  
11      analog frequency.
- 12    • The mobile station may tune to other frequencies in the Candidate Frequency  
13      Analog Search Set and make power measurements during this visit away from the  
14      Serving Frequency.
- 15    • The mobile station shall not change its time reference (see 2.1.5 of [2]) until it  
16      resumes using the Serving Frequency Active Set, as described below.
- 17    • The mobile station shall tune to the Serving Frequency and resume using the  
18      Serving Frequency Active Set as follows:
  - 19       – If the mobile station was processing the Forward Fundamental Channel prior to  
20          tuning to the Candidate Frequency, the mobile station shall resume processing  
21          the Forward Fundamental Channel. If the mobile station was transmitting on  
22          the Reverse Fundamental Channel prior to tuning to the Candidate Frequency,  
23          the mobile station shall resume transmitting on the Reverse Fundamental  
24          Channel.
  - 25       – If the mobile station was processing the Forward Dedicated Control Channel  
26          prior to tuning to the Candidate Frequency, the mobile station shall resume  
27          processing the Forward Dedicated Control Channel. If the mobile station was  
28          transmitting on the Reverse Dedicated Control Channel prior to tuning to the  
29          Candidate Frequency, the mobile station shall resume transmitting on the  
30          Reverse Dedicated Control Channel.
  - 31       – If the Forward Supplemental Code Channels or Forward Supplemental Channels  
32          assignment has not expired, the mobile station shall resume processing the  
33          Forward Supplemental Code Channels or Forward Supplemental Channels  
34          respectively (if any).
  - 35       – If the Reverse Supplemental Code Channel or Reverse Supplemental Channels  
36          assignment has not expired, the mobile station may resume transmitting on the  
37          Reverse Supplemental Code Channels or Reverse Supplemental Channels  
38          respectively (if any).
  - 39       – When the mobile station resumes transmission on the Reverse Traffic Channel,  
40          it shall use the following rules to re-enable its transmitter:

- + If the interval between the time that the mobile station disables its transmitter and the time that it resumes using the Serving Frequency Active Set is equal to or greater than ( $N_{2m} \times 20$ ) ms, then the mobile station shall wait to receive a period of ( $N_{3m} \times 20$ ) ms with sufficient signal quality (e.g. good frames) on the physical channel corresponding to FPC\_PRI\_CHANs before it re-enables its transmitter.
- + Otherwise, the mobile station shall re-enable its transmitter no later than  $N_{3m} \times 20$  ms after the mobile station tunes to the Serving Frequency. The mobile station should re-enable its transmitter earlier. After the mobile station re-enables its transmitter, the mean output power shall be as specified in 2.1.2.4.1 of [2] for a step change in input power. If the mobile station re-enables its transmitter earlier than  $N_{3m} \times 20$  ms after it tunes to the Serving Frequency, the initial mean output power shall be as specified in 2.1.2.3.1 of [2], where the initial mean input power estimate is either:
  - o within 6 dB of the actual mean input power, or
  - o equal to the mean input power before the mobile station tuned to the Target Frequency.
- The mobile station shall enable the fade timer and the handoff drop timers corresponding to the pilots in its Active Set and Candidate Set. The mobile station shall resume incrementing TOT\_FRAMEs<sub>s</sub>, BAD\_FRAMEs<sub>s</sub>, DCCH\_TOT\_FRAMEs<sub>s</sub>, DCCH\_BAD\_FRAMEs<sub>s</sub>, SCH\_TOT\_FRAMEs<sub>s</sub>, and SCH\_BAD\_FRAMEs<sub>s</sub> if applicable as specified in 2.6.4.1.1.

#### 2.6.6.2.10.4 Aborting Analog Frequencies Periodic Search

When the mobile station aborts a periodic search, it shall do the following:

- The mobile station shall cancel any remaining visits away from the Serving Frequency in the current search period and shall not send a *Candidate Frequency Search Report Message* for the current search period.
- The mobile station shall disable the periodic search timer.

#### 2.6.6.2.11 Processing of Reverse Supplemental Code Channels and Reverse Supplemental Channels

If USE\_T\_ADD\_ABORT<sub>s</sub> is set to '1', and the strength of a Neighbor Set or Remaining Set pilot is found to be above T\_ADD<sub>s</sub>, then the mobile station shall terminate any active transmission on Reverse Supplemental Code Channels or Reverse Supplemental Channels at the end of the current 20 ms frame. The mobile station shall do the following:

- Any previously active Reverse Supplemental Code Channel or Reverse Supplemental Channel assignment shall be considered implicitly terminated.
- If active transmission on Reverse Supplemental Code Channels is terminated, the mobile station shall set NUM\_REV\_CODEs<sub>s</sub> to '000' and shall set IGNORE\_SCAM<sub>s</sub> to '1'.

- If active transmission on Reverse Supplemental Channels is terminated, the mobile station shall set IGNORE\_ESCAM<sub>S</sub> to '1'.
- The mobile station shall set SCRM\_SEQ\_NUM<sub>S</sub> to (SCRM\_SEQ\_NUM<sub>S</sub> + 1) mod 16.
- The mobile station shall transmit a *Supplemental Channel Request Message* with USE\_SCRM\_SEQ\_NUM set to '1', SCRM\_SEQ\_NUM set to SCRM\_SEQ\_NUM<sub>S</sub>, and SIZE\_OF\_REQ\_BLOB set to '0000'.

#### 2.6.6.2.12 Periodic Serving Frequency Pilot Report Procedure

While the mobile station is tuned to the Serving Frequency (specified by CDMACH<sub>S</sub> and CDMABAND<sub>S</sub>), the mobile station shall measure the total received power spectral density, in mW/1.23 MHz, on the Serving Frequency at least once every 20 ms frame. The mobile station shall maintain the average value of the total received power spectral density, *spec\_density*, over the last N<sub>12m</sub> frames. The mobile station shall maintain the PPSMM timer as follows:

- When the mobile station starts a Periodic Serving Frequency Pilot Report Procedure, it shall set the PPSMM timer to PPSMM\_PERIOD<sub>S</sub> × 0.08 seconds and shall enable the timer.
- When the PPSMM timer expires, the mobile station shall send a *Periodic Pilot Strength Measurement Message* (2.6.6.2.5.2) to the base station, reset the PPSMM timer to PPSMM\_PERIOD<sub>S</sub> × 0.08 seconds and shall re-enable the timer.
- When the mobile station receives an *Extended Handoff Direction Message*, a *General Handoff Direction Message* or a *Universal Handoff Direction Message* directing the mobile station to perform a hard handoff (see 2.6.6.2.5.1), it shall abort the Periodic Serving Frequency Pilot Report Procedure and disable the PPSMM timer if it is enabled.
- If MIN\_PILOT\_PWR\_THRESH<sub>S</sub> is not equal to '11111' and MIN\_PILOT\_EC\_IO\_THRESH<sub>S</sub> is equal to '11111', the mobile station shall perform the following actions once per frame:
  - Disable the PPSMM timer if the received total energy per PN chip, E<sub>C</sub>, of the pilots in the Active Set is not less than (-120 + 2 × MIN\_PILOT\_PWR\_THRESH<sub>S</sub>), where the value of E<sub>C</sub> is computed as  $10 \times \log_{10} (\text{PS} \times \text{spec\_density})$  and PS is the total E<sub>C</sub>/I<sub>O</sub> of the pilots in the Active Set measured as specified in 2.6.6.2.2.
  - Reset the expiration time of the PPSMM timer to PPSMM\_PERIOD<sub>S</sub> × 0.08 seconds and re-enable the timer if the following conditions are true:
    - o the PPSMM timer is disabled, and
    - o the received total energy per PN chip, E<sub>C</sub>, of the pilots in the Active Set is less than (-120 + 2 × MIN\_PILOT\_PWR\_THRESH<sub>S</sub>).
- If MIN\_PILOT\_PWR\_THRESH<sub>S</sub> is equal to '11111' and MIN\_PILOT\_EC\_IO\_THRESH<sub>S</sub> is not equal to '11111', the mobile station shall perform the following actions once per frame:

- 1     – Disable the PPSMM timer if the total pilot strength of the pilots in the Active Set,  
2        PS, satisfies the condition that  $(-20 \times \log_{10}(PS))$  is not greater than  
3         $\text{MIN\_PILOT\_EC\_IO\_THRESH}_S$ .
- 4     – Reset the expiration time of the PPSMM timer to  $\text{PPSMM\_PERIOD}_S \times 0.08$   
5        seconds and re-enable the timer if the following conditions are true:  
6           o the PPSMM timer is disabled, and  
7           o the total pilot strength of the pilots in the Active Set, PS, satisfies the  
8              condition that  $(-20 \times \log_{10}(PS))$  is greater than  $\text{MIN\_PILOT\_EC\_IO\_THRESH}_S$ .
- 9     • If  $\text{MIN\_PILOT\_PWR\_THRESH}_S$  is not equal to ‘11111’ and  
10         $\text{MIN\_PILOT\_EC\_IO\_THRESH}_S$  is not equal to ‘11111’, the mobile station shall  
11        perform the following actions once per frame:  
12           – Disable the PPSMM timer if the following conditions are true:  
13              o the received total energy per PN chip,  $E_C$ , of the pilots in the Active Set is not  
14                less than  $(-120 + 2 \times \text{MIN\_PILOT\_PWR\_THRESH}_S)$ , and  
15              o the total pilot strength of the pilots in the Active Set, PS, satisfies the  
16                condition that  $(-20 \times \log_{10}(PS))$  is not greater than  
17                 $\text{MIN\_PILOT\_EC\_IO\_THRESH}_S$ .  
18           – Reset the expiration time of the PPSMM timer to  $\text{PPSMM\_PERIOD}_S \times 0.08$   
19        seconds and re-enable the timer if the following conditions are true:  
20              o the PPSMM timer is disabled, and  
21              o the received total energy per PN chip,  $E_C$ , of the pilots in the Active Set is less  
22                than  $(-120 + 2 \times \text{MIN\_PILOT\_PWR\_THRESH}_S)$ , or the total pilot strength of  
23                the pilots in the Active Set, PS, satisfies the condition that  $(-20 \times \log_{10}(PS))$  is  
24                greater than  $\text{MIN\_PILOT\_EC\_IO\_THRESH}_S$ .  
25     • If  $\text{MIN\_PILOT\_PWR\_THRESH}_S$  is equal to ‘11111’ and  $\text{MIN\_PILOT\_EC\_IO\_THRESH}_S$   
26        is equal to ‘11111’, the mobile station shall maintain the PPSMM timer independent  
27        of the received power and the total  $E_C/I_0$  of the pilots.

#### 28     2.6.6.3 Examples

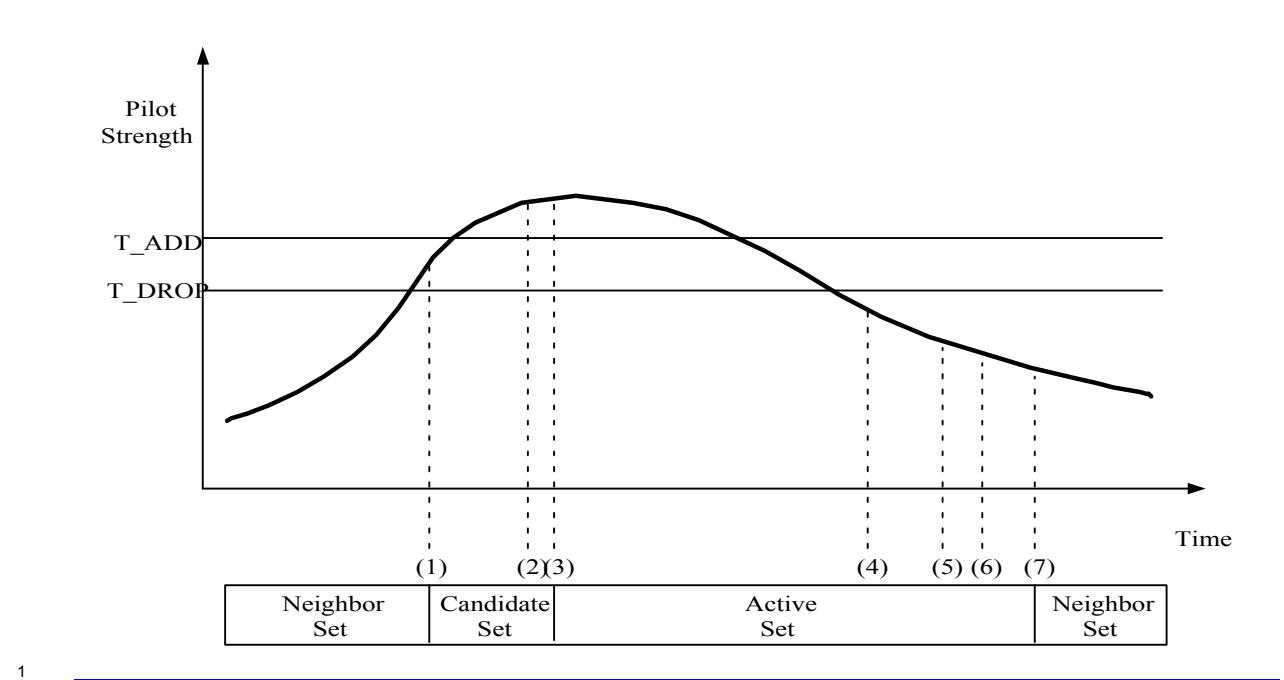
29     The following examples illustrate typical message exchanges between the mobile station and  
30        the base station during handoff. Refer to Annex B for examples of call processing during  
31        handoff.

32     Figure 2.6.6.3-1 shows an example of the messages exchanged between the mobile station and  
33        the base station during a typical handoff process if  $P_{REV\_IN\_USE}_S$  is less than or  
34        equal to three or  $SOFT\_SLOPE}_S$  is equal to ‘000000’.

35     Figure 2.6.6.3-2 shows an example of the messages exchanged between the mobile station and  
36        the base station during a typical handoff process if  $P_{REV\_IN\_USE}_S$  is greater than  
37        three and  $SOFT\_SLOPE}_S$  is not equal to ‘000000’.

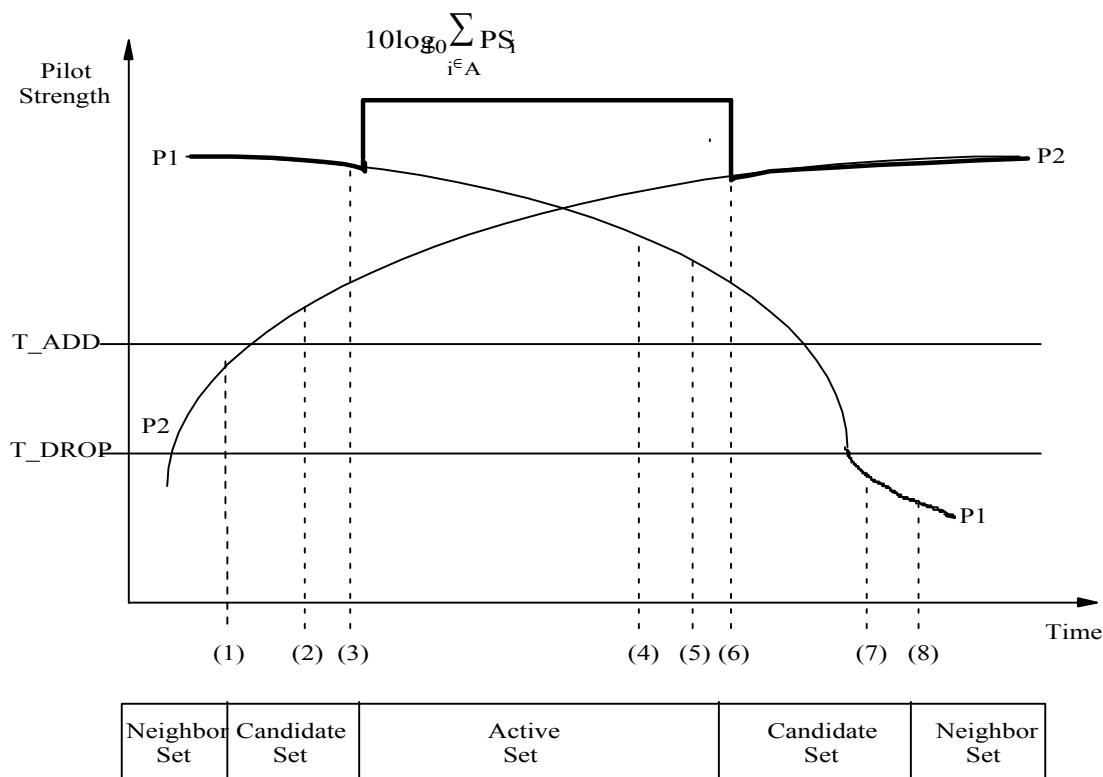
1 Figure 2.6.6.3-3 illustrates the messaging triggered by a pilot of the Candidate Set as its  
2 strength gradually rises above the strength of each pilot of the Active Set if P\_REV\_IN\_USE<sub>s</sub>  
3 is less than or equal to three, or SOFT\_SLOPE<sub>s</sub> is equal to '000000'. Note that the mobile  
4 station reports that a Candidate Set pilot is stronger than an Active Set pilot only if the  
5 difference between their respective strengths is at least T\_COMP × 0.5 dB.

6 Figure 2.6.6.3-4 illustrates the messaging triggered by a pilot of the Candidate Set as its  
7 strength gradually rises above the strength of each pilot of the Active Set if P\_REV\_IN\_USE<sub>s</sub>  
8 is greater than three and SOFT\_SLOPE<sub>s</sub> is not equal to '000000'. Note that the mobile  
9 station reports that a Candidate Set pilot is stronger than an Active Set pilot only if the  
10 difference between their respective strengths is at least T\_COMP × 0.5 dB and Pilot P<sub>0</sub>  
11 strength exceeds [(SOFT\_SLOPE/8) × 10 × log<sub>10</sub>(PS<sub>1</sub> + PS<sub>2</sub>) + ADD\_INTERCEPT/2].



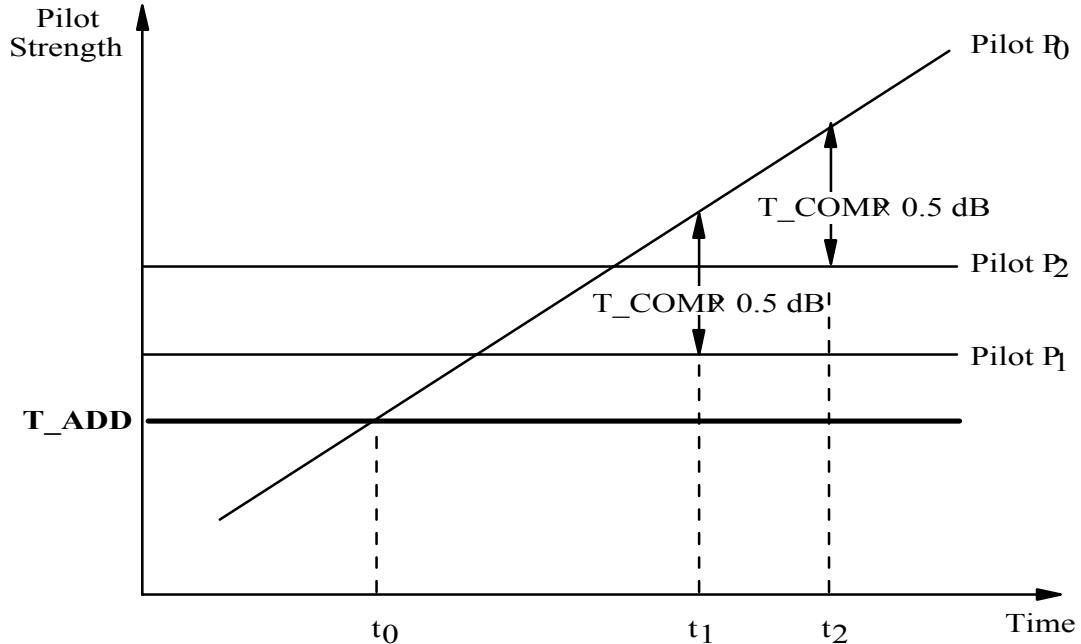
- (1) Pilot strength exceeds  $T_{ADD}$ . Mobile station sends a *Pilot Strength Measurement Message* and transfers pilot to the Candidate Set.
- (2) Base station sends an *Extended Handoff Direction Message*, a *General Handoff Direction Message* or a *Universal Handoff Direction Message*.
- (3) Mobile station transfers pilot to the Active Set and sends a *Handoff Completion Message*.
- (4) Pilot strength drops below  $T_{DROP}$ . Mobile station starts the handoff drop timer.
- (5) Handoff drop timer expires. Mobile station sends a *Pilot Strength Measurement Message*.
- (6) Base station sends an *Extended Handoff Direction Message*, a *General Handoff Direction Message* or a *Universal Handoff Direction Message*.
- (7) Mobile station moves pilot from the Active Set to the Neighbor Set and sends a *Handoff Completion Message*.

**Figure 2.6.6.3-1. Handoff Threshold Example if P\_REV\_IN\_USE<sub>s</sub> is Less Than or Equal to Three, or SOFT\_SLOPE<sub>s</sub> is Equal to '000000'**

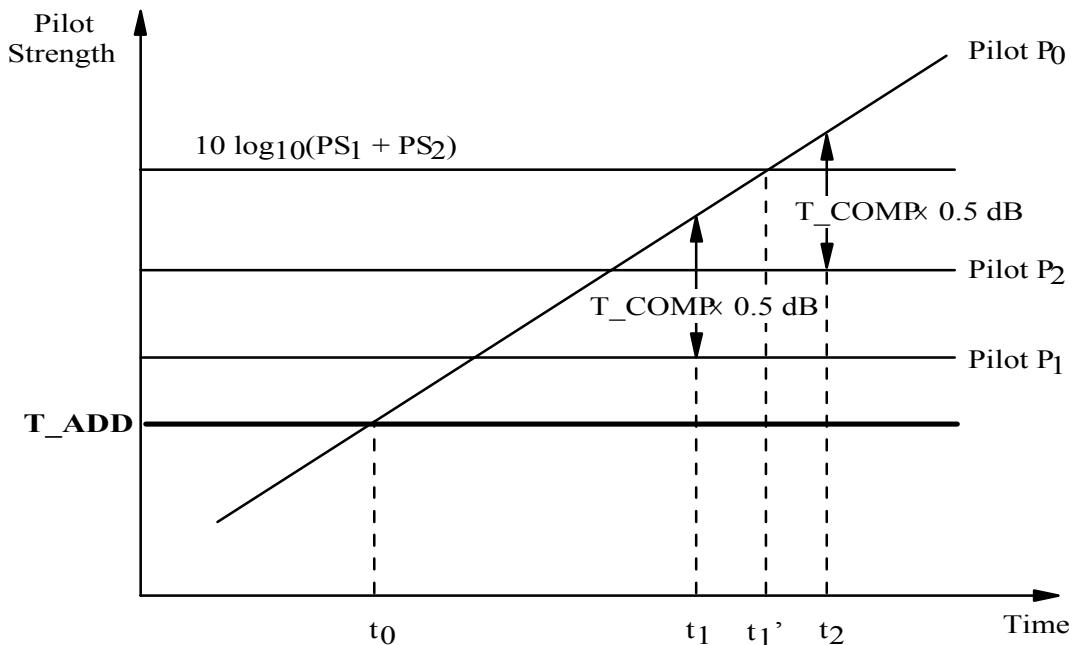


- (1) Pilot  $P_2$  strength exceeds  $T_{ADD}$ . Mobile station transfers the pilot to the Candidate Set.
- (2) Pilot  $P_2$  strength exceeds  $[(SOFT\_SLOPE/8) \times 10 \times \log_{10}(PS_1) + ADD\_INTERCEPT/2]$ . Mobile station sends a *Pilot Strength Measurement Message*.
- (3) Mobile station receives an *Extended Handoff Direction Message*, a *General Handoff Direction Message* or a *Universal Handoff Direction Message*, transfers the pilot  $P_2$  to the Active Set, and sends a *Handoff Completion Message*.
- (4) Pilot  $P_1$  strength drops below  $[(SOFT\_SLOPE/8) \times 10 \times \log_{10}(PS_2) + DROP\_INTERCEPT/2]$ . Mobile station starts the handoff drop timer.
- (5) Handoff drop timer expires. Mobile station sends a *Pilot Strength Measurement Message*.
- (6) Mobile station receives an *Extended Handoff Direction Message*, a *General Handoff Direction Message* or a *Universal Handoff Direction Message*, transfers the pilot  $P_1$  to the Candidate Set and sends a *Handoff Completion Message*.
- (7) Pilot  $P_1$  strength drops below  $T_{DROP}$ . Mobile station starts the handoff drop timer.
- (8) Handoff drop timer expires. Mobile station moves the pilot  $P_1$  from the Candidate Set to the Neighbor Set.

**Figure 2.6.6.3-2. Handoff Threshold Example if  $P_{REV\_IN\_USE_s}$  is Greater Than Three, and  $SOFT\_SLOPE_s$  is Not Equal to '000000'**



- 1 Candidate Set: Pilot  $P_0$
  - 2 Active Set: Pilots  $P_1, P_2$
  - 3  $t_0$  – Pilot Strength Measurement Message sent,  $P_0 > T_{ADD}$
  - 4  $t_1$  – Pilot Strength Measurement Message sent,  $P_0 > P_1 + T_{COMP} \times 0.5 \text{ dB}$
  - 5  $t_2$  – Pilot Strength Measurement Message sent,  $P_0 > P_2 + T_{COMP} \times 0.5 \text{ dB}$
- Figure 2.6.6.3-3. Pilot Strength Measurements Triggered by a Candidate Pilot if  $P_{REV\_IN\_USE_s} = 3$  or  $SOFT\_SLOPE_s = '000000'$**



Candidate Set: Pilot  $P_0$

Active Set: Pilots  $P_1$ ,  $P_2$

$t_0$  – Pilot Strength Measurement Message not sent because

$$[10 \times \log_{10}(PS_0)] < [(SOFT\_SLOPE/8) \times 10 \times \log_{10}(PS_1 + PS_2) + ADD\_INTERCEPT/2]$$

$t_1$  – Pilot Strength Measurement Message not sent because

$$P_0 > [P_1 + T_{COMP} \times 0.5 \text{ dB}] \text{ but}$$

$$[10 \times \log_{10}(PS_0)] < [(SOFT\_SLOPE/8) \times 10 \times \log_{10}(PS_1 + PS_2) + ADD\_INTERCEPT/2]$$

$t_1'$  – Pilot Strength Measurement Message sent because

$$[10 \times \log_{10}(PS_0)] > [(SOFT\_SLOPE/8) \times 10 \times \log_{10}(PS_1 + PS_2) + ADD\_INTERCEPT/2]$$

$t_2$  – Pilot Strength Measurement Message sent because

$$P_0 > [P_2 + T_{COMP} \times 0.5 \text{ dB}] \text{ and}$$

$$[10 \times \log_{10}(PS_0)] > [(SOFT\_SLOPE/8) \times 10 \times \log_{10}(PS_1 + PS_2) + ADD\_INTERCEPT/2]$$

**Figure 2.6.6.3-4. Pilot Strength Measurements Triggered by a Candidate Pilot if  $P_{REV\_IN\_USE_s} > 3$  and  $SOFT\_SLOPE_s$  is Not Equal to '000000'**

## 1    2.6.7 Hash Functions and Randomization

## 2    2.6.7.1 Hash Function

3    Certain procedures require a uniform distribution of mobile stations among N resources.  
 4    The following function returns an integer, using as arguments the mobile station's IMSI, the  
 5    number of resources N, and a modifier DECORR. The modifier serves to decorrelate the  
 6    values obtained for the various applications from the same mobile station.

7    HASH\_KEY shall be equal to the 32 least significant bits of  $(\text{IMSI\_O\_S1} + 2^{24} \times \text{IMSI\_O\_S2})$ .

8    Define:

- 9       • Word L to be bits 0-15 of HASH\_KEY
- 10      • Word H to be bits 16-31 of HASH\_KEY

11   where bit 0 is the least significant bit of HASH\_KEY.

12   For determining CDMA Channel Number, Paging Channel Number, Forward Common  
 13   Control Channel Number, Quick Paging Channel Number, and Paging Slot Number, the  
 14   hash value is computed as follows:<sup>18</sup>

$$15   \quad R = \lfloor N \times ((40503 \times (L \oplus H \oplus \text{DECORR})) \bmod 2^{16}) / 2^{16} \rfloor.$$

16   For determining a mobile station's assigned paging indicator bit positions, the hash value is  
 17   computed as follows:

$$18   \quad R_1 = \lfloor N \times ((40503 \times (L \oplus H \oplus \text{DECORR}_1)) \bmod 2^{16}) / 2^{16} \rfloor,$$

19   and

$$20   \quad R_2 = \lfloor ( (1 - \lfloor (2 \times R_1) / (N+4) \rfloor) \times (N+4) / 2 + \lfloor (2 \times R_1) / (N+4) \rfloor \times ((N+4) / 2 - 4) ) \times ((40503 \times (L \oplus H \oplus \text{DECORR}_2)) \bmod 2^{16}) / 2^{16} \rfloor + N + 4 + \lfloor (2 \times R_1) / (N+4) \rfloor \times ((N+4) / 2) \text{ for Quick Paging Channel indicator rate of 4800 bps, or}$$

$$23   \quad R_2 = \lfloor ( (1 - \lfloor (2 \times R_1) / (N+8) \rfloor) \times (N+8) / 2 + \lfloor (2 \times R_1) / (N+8) \rfloor \times ((N+8) / 2 - 8) ) \times ((40503 \times (L \oplus H \oplus \text{DECORR}_2)) \bmod 2^{16}) / 2^{16} \rfloor + N + 8 + \lfloor (2 \times R_1) / (N+8) \rfloor \times ((N+8) / 2) \text{ for Quick Paging Channel indicator rate of 9600 bps.}$$

26   The mobile station shall choose the range N and the modifiers DECORR, DECORR<sub>1</sub>, and  
 27   DECORR<sub>2</sub> according to the application as shown in Table 2.6.7.1-1. In the table,  
 28   HASH\_KEY [0...11] denotes the 12 least significant bits of HASH\_KEY.

29

---

<sup>18</sup> This formula is adapted from Knuth, Donald N., *The Art of Computer Programming*, 2 volumes, (Reading, MA, Addison-Wesley, 1998).

1

**Table 2.6.7.1-1. Hash Function Modifier**

| <b>Application</b>                    | <b>N</b>                                                                                                                                              | <b>DECORR</b>                                                                                                                                                                                                                                    | <b>Return Value</b>               |
|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|
| CDMA Channel Number                   | Number of channels in last <i>CDMA Channel List Message</i> or the number of qualified channels in the last <i>Extended CDMA Channel List Message</i> | 0                                                                                                                                                                                                                                                | R + 1                             |
| Paging Channel Number                 | PAGE_CHAN <sub>s</sub> from <i>System Parameters Message</i> (up to 7)                                                                                | 2 × HASH_KEY [0...11]                                                                                                                                                                                                                            | R + 1                             |
| Quick Paging Channel Number           | NUM_QPCH <sub>s</sub> from <i>Extended System Parameters Message</i> or <i>MC-RR Parameters Message</i> (up to 3)                                     | 2 × HASH_KEY [0...11]                                                                                                                                                                                                                            | R + 1                             |
| Paging Slot Number                    | 2048                                                                                                                                                  | 6 × HASH_KEY[0...11]                                                                                                                                                                                                                             | R                                 |
| Paging Indicator Positions            | 376 (for 9600 bps), 188 (for 4800 bps)                                                                                                                | DECORR <sub>1</sub> = $\lfloor t / 64 \rfloor \bmod 2^{16}$ ,<br>DECORR <sub>2</sub> = $\lfloor t / 64 + 1 \rfloor \bmod 2^{16}$ ,<br>where t is the System Time in frames, relative to the beginning of the assigned Quick Paging Channel slot. | R <sub>1</sub> and R <sub>2</sub> |
| Forward Common Control Channel Number | NUM_FCCCH <sub>s</sub> from <i>MC-RR Parameters Message</i> (up to 7)                                                                                 | 2 × HASH_KEY [0...11]                                                                                                                                                                                                                            | R + 1                             |

2

## 3 2.6.7.2 Pseudorandom Number Generator

4 Where pseudorandom numbers are needed, a linear congruential generator shall be used.

5 The mobile station shall implement the linear congruential generator defined by:

6 
$$z_n = a \times z_{n-1} \bmod m$$

7 where  $a = 7^5 = 16807$  and  $m = 2^{31} - 1 = 2147483647$ .  $z_n$  is the output of the generator.<sup>19</sup>

<sup>19</sup> This generator has full period, ranging over all integers from 1 to m-1; the values 0 and m are never produced. Several suitable implementations can be found in Park, Stephen K. and Miller, Keith

(footnote continued on next page)

1 During the *Mobile Station Initialization State*, the mobile station shall seed its generator with

$$2 z_0 = (\text{ESN} \oplus \text{RANDOM\_TIME}) \bmod m$$

3 where RANDOM\_TIME shall be the least-significant 32-bits of SYS\_TIME<sub>S</sub> stored from the  
4 Sync Channel Message. If the initial value so produced is found to be zero, it shall be  
5 replaced with one. The mobile station shall compute a new  $z_n$  for each subsequent use.

6 The mobile station shall use the value  $u_n = z_n / m$  for those applications that require a  
7 binary fraction  $u_n$ ,  $0 < u_n < 1$ .

8 The mobile station shall use the value  $k_n = \lfloor N \times z_n / m \rfloor$  for those applications that require  
9 a small integer  $k_n$ ,  $0 \leq k_n \leq N - 1$ .

10 2.6.8 CODE\_CHAN\_LIST<sub>S</sub> Maintenance

11 The CODE\_CHAN\_LIST<sub>S</sub> is a descriptive structure used to manage the Forward  
12 Fundamental ~~Code~~-Channel and Forward Supplemental Code Channels, if any, associated  
13 with the mobile station's Active Set. Associated with each member of the mobile station's  
14 Active Set, there is an ordered array of code channels. The first entry of the ordered array  
15 specifies the Forward Fundamental ~~Code~~-Channel associated with the pilot and the  
16 subsequent entries, if any, specify the Forward Supplemental Code Channels associated  
17 with the pilot. The CODE\_CHAN\_LIST<sub>S</sub> is the collection of ordered arrays of code channels  
18 for each member of the mobile station's Active Set. The  $i^{\text{th}}$  entry in every array (of code  
19 channels associated with a member of the Active Set) corresponds to the  $i^{\text{th}}$  code channel.

20 The mobile station shall maintain the CODE\_CHAN\_LIST<sub>S</sub> as follows:

- 21 • When the mobile station is first assigned a Forward Fundamental ~~Code~~-Channel, it  
22 shall initialize the CODE\_CHAN\_LIST<sub>S</sub> to contain the Forward Fundamental ~~Code~~  
23 Channel for each member of the Active Set.
- 24 • When the mobile station processes the *Extended Handoff Direction Message*, the  
25 mobile station shall update the CODE\_CHAN\_LIST<sub>S</sub> as follows:
  - 26 – For each pilot listed in the *Extended Handoff Direction Message* which does not  
27 have a corresponding code channel in the CODE\_CHAN\_LIST<sub>S</sub>, the mobile  
28 station shall add the code channel, CODE\_CHAN, of that pilot to the  
29 CODE\_CHAN\_LIST<sub>S</sub>, as the Forward Fundamental ~~Code~~-Channel for the pilot.
  - 30 – The mobile station shall delete all information in the CODE\_CHAN\_LIST<sub>S</sub>  
31 associated with a pilot that is not included in the *Extended Handoff Direction  
32 Message*.

---

W., "Random Number Generators: Good Ones are Hard to Find," *Communications of the ACM*, vol. 31,  
no. 10, October 1988, pp. 1192-1201.

- When the mobile station processes the *General Handoff Direction Message*, the mobile station shall update the CODE\_CHAN\_LIST<sub>s</sub> to contain the Forward Fundamental Code-Channel associated with each pilot included in the *General Handoff Direction Message*. The first code channel occurrence associated with each pilot included in the *General Handoff Direction Message* corresponds to the Forward Fundamental Code-Channel. The mobile station shall do the following:
  - If FOR\_SUP\_CONFIG<sub>r</sub> is included and FOR\_SUP\_CONFIG<sub>r</sub> is equal to ‘10’ or ‘11’, the mobile station shall perform the following actions:
    - + For each pilot listed in the *General Handoff Direction Message*, the mobile station shall set the Forward Supplemental Code Channels (associated with the pilot) in the CODE\_CHAN\_LIST<sub>s</sub> to the Forward Supplemental Code Channels specified in the *General Handoff Direction Message*.
    - + The mobile station shall delete all information in the CODE\_CHAN\_LIST<sub>s</sub> associated with a pilot that is not included in the *General Handoff Direction Message*.
  - If FOR\_SUP\_CONFIG<sub>r</sub> is equal to ‘00’ or ‘01’ or if FOR\_SUP\_CONFIG<sub>r</sub> is not included in the *General Handoff Direction Message*, the mobile station shall not update Supplemental Code Channels associated with the pilots included in the *General Handoff Direction Message*. The mobile station shall perform the following actions:
    - + For each pilot listed in the *General Handoff Direction Message* which does not have a corresponding code channel in the CODE\_CHAN\_LIST<sub>s</sub>, the mobile station shall add the code channel, CODE\_CHAN, of that pilot to the CODE\_CHAN\_LIST<sub>s</sub>, as the Forward Fundamental Code-Channel for the pilot.
    - + The mobile station shall delete all information in the CODE\_CHAN\_LIST<sub>s</sub> associated with a pilot that is not included in the *General Handoff Direction Message*.
- When the mobile station processes the *Supplemental Channel Assignment Message* it shall follow the following rules:
  - If FOR\_SUP\_CONFIG<sub>r</sub> is equal to ‘10’ or ‘11’, the mobile station shall update the Forward Supplemental Code Channels for each pilot in the Active Set.
  - If the pilot is not listed in the *Supplemental Channel Assignment Message*, the mobile station shall delete all occurrences of Forward Supplemental Code Channels associated with the pilot from the Code Channel List.
  - If a pilot is listed in the *Supplemental Channel Assignment Message*, then the mobile station shall set the Forward Supplemental Code Channels (associated with the pilot) in the CODE\_CHAN\_LIST<sub>s</sub> to the Forward Supplemental Code Channels specified in the *Supplemental Channel Assignment Message*.

- 1        – If FOR\_SUP\_CONFIG<sub>r</sub> is equal to ‘00’ or ‘01’, the mobile station shall not update  
 2              Supplemental Code Channels associated with the pilots included in the  
 3              *Supplemental Channel Assignment Message.*

4        2.6.9 CDMA Tiered Services

5        This section presents an overview and mobile station requirements for the support of CDMA  
 6        Tiered services while the mobile station is in the *Mobile Station Idle State* and in the *Mobile*  
 7        *Station Control on the Traffic Channel State.*

8        2.6.9.1 Overview

9        2.6.9.1.1 Definition

10      The mobile station may support Tiered Services based upon User Zones. Tiered Services  
 11     provide the user custom services and special features based upon the mobile station  
 12     location. Tiered Services also provides private network support. Important to the operation  
 13     of CDMA Tiered Services is the concept of User Zones. It is via User Zones by which the  
 14     base station offers custom services based upon the mobile station location.

15      User Zones are associated with a set of features and services, plus a geographic area in  
 16     which the User Zone features/services are made available to the customers that have  
 17     subscribed to that User Zone. The boundary of the User Zone Geographic area may be  
 18     established based on the coverage area of a public or private base station or it may be  
 19     established independent of RF topology.

20      User Zones may be supported by the public system on the same frequency as the serving  
 21     base station, or they may be supported on a private system operating on a different  
 22     frequency.

23      2.6.9.1.2 Types of User Zones

24      User Zones may be of two basic types:

- 25        • *Broadcast User Zones:* Broadcast User Zones are identified to the mobile station using  
 26              the Paging Channel or the Primary Broadcast Control Channel. In this case, the base  
 27              station broadcasts on the Paging Channel or the Primary Broadcast Control Channel  
 28              messages identifying the User Zones that fall within the coverage area of the  
 29              particular cell/sector. Mobile stations, as part of their monitoring of the Paging  
 30              Channel or the Primary Broadcast Control Channel, will identify the presence of a  
 31              particular User Zone.
- 32        • *Mobile Specific User Zones:* Mobile Specific User Zones are not broadcast by the base  
 33              station. The mobile station may use other overhead message parameters and  
 34              compare them with internally stored User Zone parameters to identify the presence of  
 35              a particular User Zone. These parameters may include: SID, NID, BASE\_ID,  
 36              BASE\_LAT, and BASE\_LONG.

37      *Broadcast User Zones* allow for permanent as well as temporary subscription. Temporary  
 38      subscription provides User Zone features and capabilities to users who are not subscribed  
 39      to the User Zone. In this case, a mobile station, upon entering a new coverage area, may

1 detect the presence of a User Zone that it presently does not subscribe to, but one that  
2 supports temporary subscription. The mobile station then queries the network to obtain  
3 the User Zone parameters. Once these parameters are received, the mobile station offers to  
4 the user via the mobile station user interface, the option of subscribing to the particular  
5 User Zone.

6 Some User Zones may require active registration (Active User Zones) upon the mobile  
7 station's entry to immediately trigger a change in a feature(s). For others, the implicit  
8 registration at call setup is sufficient (Passive User Zones). Active User Zones are used  
9 where inbound features change as a result of being in the User Zone. During the *Mobile*  
10 *Station Idle State*, a mobile stations needs to register to update the User Zone ID whenever  
11 the User Zone that the mobile station is entering and/or leaving is of the Active type.

12 A mobile station that supports User Zone services may store a list of User Zones, where  
13 each User Zone is identified by a User Zone ID (UZID). Associated with each stored User  
14 Zone, the mobile station may also store a number of determinant parameters used for  
15 identifying User Zones.

16 **2.6.9.2 Requirements**

17 If the mobile station supports User Zone services, it shall maintain and update UZIDs  
18 according the following rule:

19 If the mobile station selects a User Zone supported by the base station, the mobile station  
20 shall set UZID<sub>S</sub> to the User Zone Identifier associated with the User Zone; otherwise, the  
21 mobile station shall set UZID<sub>S</sub> to '0000000000000000'. The precise process for determining  
22 how to select a User Zone that is supported by the base station is left to the mobile station  
23 manufacturer.

24 If the mobile station does not support User Zone services, the mobile station shall set  
25 UZID<sub>S</sub> to '0000000000000000'.

26 The mobile station may search pilots of private neighbor base stations on other frequencies  
27 and band classes as identified in the *Private Neighbor List Message*. Search performance  
28 criteria are defined [11].

29 **2.6.9.2.1 User Zone Operation in the Mobile Station Idle State:**

30 When a mobile station performs an idle handoff, it selects User Zones based on internally  
31 stored parameters and information broadcast on the Paging Channel or on the Primary  
32 Broadcast Control Channel as described in 2.6.9.1.

33 After the mobile station performs idle handoff, if the mobile station determines that a  
34 change from one Broadcast User Zone to another Broadcast User Zone is required, the  
35 mobile station shall not update UZID<sub>S</sub>, UZ\_EXIT\_IN\_USE<sub>S</sub> and shall not perform User Zone  
36 registration until the pilot strength of the currently serving base station exceeds that of the  
37 base station corresponding to the old User Zone by the value of UZ\_EXIT\_IN\_USE<sub>S</sub>.

1 If the mobile station determines that it needs to change User Zone, and if the difference  
 2 between the pilot strengths exceeds UZ\_EXIT\_IN\_USE<sub>S</sub>, then the mobile station shall do the  
 3 following:

- 4 • Perform User Zone registration.
- 5 • Update UZID<sub>S</sub>.
- 6 • Set UZ\_EXIT\_IN\_USE<sub>S</sub> to UZ\_EXIT\_RCVD<sub>S</sub>.

7 The mobile station may also implement other means to avoid the premature exiting of a  
 8 User Zone due to rapid changes in signal strength. The exact implementation of such  
 9 techniques is left to mobile station implementation.

10 If the mobile station is in the *Mobile Station Idle State* and it receives a *User Zone Reject*  
 11 *Message* the mobile station shall perform the following:

- 12 • Set REJECT\_ACTION\_IND<sub>I</sub><sub>S</sub> to REJECT\_ACTION\_IND<sub>I</sub><sub>r</sub>.
- 13 • If UZID\_ASSIGN\_INCL<sub>r</sub> = '0', the mobile station shall set UZID<sub>S</sub> to  
 14 '0000000000000000', otherwise; the mobile station shall set UZID<sub>S</sub> to  
 15 ASSIGN\_UZID<sub>r</sub>.

16 If the mobile station is in the *Mobile Station Idle State* and it selects an active User Zone,  
 17 then the mobile station shall perform User Zone registration (see 2.6.5.1.10) by entering the  
 18 *System Access State* with a registration indication.

19 The mobile station should provide the user with a User Zone indication corresponding to  
 20 the User Zone in service each time UZID<sub>S</sub> is updated.

#### 21 2.6.9.2.2 User Zone Operation in the Mobile Station Control on the Traffic Channel State

22 If the mobile station is in the *Traffic Channel Substate* of the *Mobile Station Control on the*  
 23 *Traffic Channel State* and if it determines that the User Zone has changed, it shall update  
 24 UZID<sub>S</sub> and send a *User Zone Update Request Message* to the base station.

25 If the mobile station is in the *Traffic Channel Substate or Release Substate* of the *Mobile*  
 26 *Station Control on the Traffic Channel State* and it receives a *User Zone Update Message*,  
 27 then the mobile station shall update UZID<sub>S</sub> and set it equal to UZID<sub>r</sub>.

28 If the mobile station is in the *Traffic Channel Substate or Release Substate* of the *Mobile*  
 29 *Station Control on the Traffic Channel State* and it receives a *User Zone Reject Message*, then  
 30 the mobile station shall do the following:

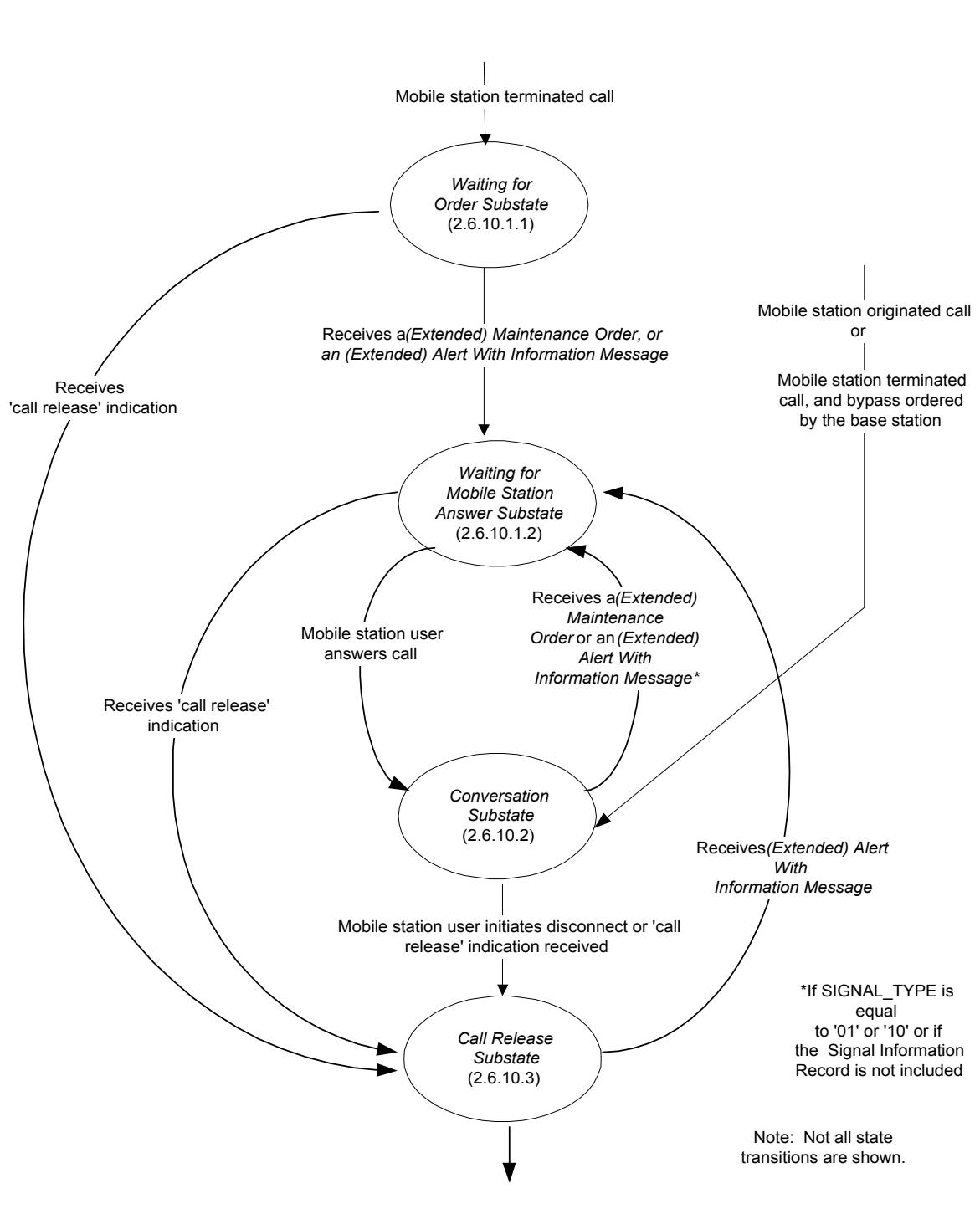
- 31 • Set REJECT\_ACTION\_IND<sub>I</sub><sub>S</sub> to REJECT\_ACTION\_IND<sub>I</sub><sub>r</sub>.
- 32 • If UZID\_ASSIGN\_INCL<sub>r</sub> = 0, the mobile station shall set UZID<sub>S</sub> to '0', otherwise; the  
 33 mobile station shall set UZID<sub>S</sub> to ASSIGN\_UZID<sub>r</sub>.

34 The mobile station should provide the user with a User Zone indication corresponding to  
 35 the User Zone in service each time UZID<sub>S</sub> is updated.

#### 36 2.6.10 Call Control Processing

37 As illustrated in Figure 2.6.10-1, the Call Control consists of the following states:

- 1     • *Waiting for Order Substate* - In this substate, the Call Control instance waits for an  
2        *Alert With Information Message* or an *Extended Alert With Information Message*.
- 3     • *Waiting for Mobile Station Answer Substate* - In this substate, the Call Control  
4        instance waits for the user to answer the call.
- 5     • *Conversation Substate* - In this substate, the parties involved in this call  
6        communicate.
- 7     • *Call Release Substate* - In this substate, the Call Control instance waits for the call  
8        to be disconnected.



1

2

3

**Figure 2.6.10-1. Call Control**

1 The following messages are processed by the Call Control:

2 - *Alert With Information Message*

3 - *Extended Alert with Information Message:*

4 - *Flash With Information Message*

5 - *Extended Flash With Information Message*

6 - *Send Burst DTMF Message*

7 - *Origination Continuation Message*

8 The following orders are processed by the Call Control:

9 - *Continuous DTMF Tone Order*

10 - *Maintenance Order*

11 - *Connect Order*

12 Upon instantiation, the Call Control instance shall perform the following:

- 13 • If this Call Control instance is instantiated with a ‘restore indication’, the Call  
14 Control instance shall enter the *Conversation Substate*.
- 15 • If the call is mobile station terminated, and BYPASS\_ALERT\_ANSWER<sub>s</sub> is ‘1’, the  
16 Call Control instance shall enter the *Conversation Substate*. If the call is mobile  
17 station terminated and BYPASS\_ALERT\_ANSWER<sub>s</sub> is ‘0’, the Call Control instance  
18 shall enter the *Waiting for Order Substate*.
- 19 • If the call is mobile station originated, the Call Control instance shall enter the  
20 *Conversation Substate*.

21 2.6.10.1 Alerting

22 2.6.10.1.1 Waiting for Order Substate

23 In this substate, the Call Control instance waits for an *Alert With Information Message* or an  
24 *Extended Alert With Information Message*.

25 Upon entering the *Waiting for Order Substate*, the Call Control instance shall set the  
26 substate timer for T52m seconds.

27 While in the *Waiting for Order Substate*, the Call Control instance shall perform the  
28 following:

- 1     • If the substate timer expires, the Call Control instance shall send a “substate timer  
2       expired indication” to the [layer 3](#)[Layer 3](#) and shall enter the *Call Release Substate*.
- 3     • If the Call Control instance receives a “reset waiting for order substate timer  
4       indication” from the [layer 3](#)[Layer 3](#), the Call Control instance shall reset the  
5       substate timer for T52m seconds.
- 6     • If the Call Control instance receives a “release indication” from the [layer 3](#)[Layer 3](#),  
7       the Call Control instance shall enter the *Call Release Substate*.
- 8     • If the Call Control instance receives an indication that the user has originated an  
9       emergency call (see 2.6.4.3), the mobile station shall send a *Flash With Information*  
10      *Message* or an *Extended Flash With Information Message* in assured mode with a  
11      Global Emergency Call Information Record (see 2.7.4.31), as follows:
  - 12       - If this Call Control instance is identified by NULL, the mobile station shall send  
13           either a *Flash With Information Message* or an *Extended Flash With Information*  
14           *Message* (with either the CON\_REF\_INCL field of the message set to ‘0’ or the  
15           CON\_REF\_INCL field set to ‘1’ and the CON\_REF field set to the connection  
16           reference of the service option connection corresponding to this call); otherwise,  
17           the mobile station shall send an *Extended Flash With Information Message*, with  
18           the CON\_REF\_INCL field of the message set to ‘1’ and the CON\_REF field of the  
19           message set to the connection reference of the service option connection  
20           corresponding to this call.
- 21     • If the Call Control instance receives a message from the [layer 3](#)[Layer 3](#) which is  
22       included in the following list and every message field value is within its permissible  
23       range, the Call Control instance shall process the message as described below and  
24       in accordance with the message’s action time (see 2.6.4.1.5).
  - 25       1. *Alert With Information Message*: If the message contains a Signal information  
26           record, the mobile station should alert the user in accordance with the Signal  
27           information record; otherwise, the mobile station should use standard alert as  
28           defined in 3.7.5.5. The Call Control instance shall enter the *Waiting for Mobile*  
29           *Station Answer Substate* (see 2.6.10.1.2).
  - 30       2. *Extended Alert with Information Message*: If the message contains a Signal  
31           information record, the mobile station should alert the user in accordance with  
32           the Signal information record; otherwise, the mobile station should use  
33           standard alert as defined in 3.7.5.5. The Call Control instance shall enter the  
34           *Waiting for Mobile Station Answer Substate* (see 2.6.10.1.2).
  - 35       3. *Maintenance Order*: The Call Control instance shall enter the *Waiting for Mobile*  
36           *Station Answer Substate*.

- 1     • If the Call Control instance receives a message that is not included in the above list,  
 2       cannot be processed, or requires a capability which is not supported, the Call  
 3       Control instance shall discard the message and send a ‘message rejected indication’  
 4       to the [layer 3](#)[Layer 3](#), with the reject reason indicated.

5     2.6.10.1.2 Waiting for Mobile Station Answer Substate

6     In this substate, the Call Control instance waits for the user to answer the mobile station  
 7       terminated call or to invoke special treatment.

8     Upon entering the *Waiting for Mobile Station Answer Substate*, the Call Control instance  
 9       shall set the substate timer for T<sub>53m</sub> seconds.

10    While in the *Waiting for Mobile Station Answer Substate*, the Call Control instance shall  
 11      perform the following:

- 12     • If the substate timer expires, the Call Control instance shall send a “substate timer  
 13       expired indication” to the [layer 3](#)[Layer 3](#) and shall enter the *Call Release Substate*.
- 14     • If the Call Control instance receives a “release indication” from the [layer 3](#)[Layer 3](#),  
 15       the Call Control instance shall enter the *Call Release Substate*.
- 16     • If the Call Control instance is directed by the user to answer the call, the mobile  
 17       station shall send a *Connect Order* in assured mode:
  - 18       - If P\_REV\_IN\_USE<sub>S</sub> is equal to or greater than seven, the mobile station shall  
 19           perform the following: If this Call Control instance is identified by NULL, the  
 20           mobile station shall either set the CON\_REF\_INCL field of the message to ‘0’ or  
 21           set the CON\_REF\_INCL field to ‘1’ and set the CON\_REF field to the connection  
 22           reference of the service option connection corresponding to this call; otherwise,  
 23           the mobile station shall set the CON\_REF\_INCL field of the message to ‘1’ and  
 24           the CON\_REF field of the message to the connection reference of the service  
 25           option connection corresponding to this call.

26    The Call Control instance shall enter the *Conversation Substate*.

- 27     • If the Call Control instance is directed by the user to forward the incoming call, the  
 28       mobile station shall send a *Flash With Information Message* or an *Extended Flash  
 29       With Information Message* in assured mode with a *Keypad Facility* information record  
 30       (see 2.7.4.2) with the CHAR<sub>i</sub> field set to a pre-programmed feature code which  
 31       indicates User Selective Call Forwarding with a pre-registered number, as follows:
  - 32       - If P\_REV\_IN\_USE<sub>S</sub> is less than seven, the mobile station shall send a *Flash With  
 33       Information Message*.

- 1     - If P\_REV\_IN\_USE<sub>s</sub> is equal to or greater than seven, the mobile station shall  
 2       perform the following: if this Call Control instance is identified by NULL, the  
 3       mobile station shall send either a *Flash With Information Message* or an  
 4       *Extended Flash With Information Message* (with either the CON\_REF\_INCL field of  
 5       the message set to '0' or the CON\_REF\_INCL field set to '1' and the CON\_REF  
 6       field set to the connection reference of the service option connection  
 7       corresponding to this call); otherwise, the mobile station shall send an *Extended*  
 8       *Flash With Information Message*, with the CON\_REF\_INCL field of the message  
 9       set to '1' and the CON\_REF field of the message set to the connection reference  
 10      of the service option connection corresponding to this call.
- 11     • If the Call Control instance is directed by user to forward the incoming call to a  
 12       number stored in the mobile station, the mobile station shall send a *Flash With*  
 13       *Information Message* or an *Extended Flash With Information Message* in assured  
 14       mode with a *Keypad Facility* information record (see 2.7.4.2) with the CHARi field set  
 15       to the following:
  - 16         - a pre-programmed feature code which indicates User Selective Call  
 17           Forwarding to a number stored in the mobile station as the first digits in  
 18           the field and
  - 19         - the forwarding to number immediately following the pre-programmed  
 20           feature code.

21      The mobile station shall send the message as follows:

- 22       - If P\_REV\_IN\_USE<sub>s</sub> is less than seven, the mobile station shall send a *Flash With*  
 23       *Information Message*.
- 24       - If P\_REV\_IN\_USE<sub>s</sub> is equal to or greater than seven, the mobile station shall  
 25       perform the following: if this Call Control instance is identified by NULL, the  
 26       mobile station shall send either a *Flash With Information Message* or an  
 27       *Extended Flash With Information Message* (with either the CON\_REF\_INCL field of  
 28       the message set to '0' or the CON\_REF\_INCL field set to '1' and the CON\_REF  
 29       field set to the connection reference of the service option connection  
 30       corresponding to this call); otherwise, the mobile station shall send an *Extended*  
 31       *Flash With Information Message*, with the CON\_REF\_INCL field of the message  
 32       set to '1' and the CON\_REF field of the message set to the connection reference  
 33       of the service option connection corresponding to this call.
- 34     • If the Call Control instance is directed by the user to forward the incoming call to  
 35       network-based voice mail, the mobile station shall send a *Flash With Information*  
 36       *Message* or an *Extended Flash With Information Message* in assured mode with a  
 37       *Keypad Facility* information record (see 2.7.4.2) with the CHARi field set to a pre-  
 38       programmed feature code which indicates User Selective Call Forwarding to voice  
 39       mail, as follows:

- If P\_REV\_IN\_USE<sub>s</sub> is less than seven, the mobile station shall send a *Flash With Information Message*.
- If P\_REV\_IN\_USE<sub>s</sub> is equal to or greater than seven, the mobile station shall perform the following: if this Call Control instance is identified by NULL, the mobile station shall send either a *Flash With Information Message* or an *Extended Flash With Information Message* (with either the CON\_REF\_INCL field of the message set to '0' or the CON\_REF\_INCL field set to '1' and the CON\_REF field set to the connection reference of the service option connection corresponding to this call); otherwise, the mobile station shall send an *Extended Flash With Information Message*, with the CON\_REF\_INCL field of the message set to '1' and the CON\_REF field of the message set to the connection reference of the service option connection corresponding to this call.
- If the Call Control instance is directed by the user to activate answer holding, the mobile station shall send a *Flash With Information Message* or an *Extended Flash With Information Message* in assured mode requiring confirmation of delivery with a *Keypad Facility* information record (see 2.7.4.2) with the CHARi field set to a pre-programmed feature code which indicates Answer Holding:
  - If P\_REV\_IN\_USE<sub>s</sub> is less than seven, the mobile station shall send a *Flash With Information Message*.
  - If P\_REV\_IN\_USE<sub>s</sub> is equal to or greater than seven, the mobile station shall perform the following: if this Call Control instance is identified by NULL, the mobile station shall send either a *Flash With Information Message* or an *Extended Flash With Information Message* (with either the CON\_REF\_INCL field of the message set to '0' or the CON\_REF\_INCL field set to '1' and the CON\_REF field set to the connection reference of the service option connection corresponding to this call); otherwise, the mobile station shall send an *Extended Flash With Information Message*, with the CON\_REF\_INCL field of the message set to '1' and the CON\_REF field of the message set to the connection reference of the service option connection corresponding to this call.

After receiving confirmation of delivery of the *Flash With Information Message* or the *Extended Flash With Information Message*, the mobile station shall send a *Connect Order* in assured mode:

- If P\_REV\_IN\_USE<sub>s</sub> is equal to or greater than seven, the mobile station shall perform the following: If this Call Control instance is identified by NULL, the mobile station shall either set the CON\_REF\_INCL field of the message to '0' or set the CON\_REF\_INCL field to '1' and set the CON\_REF field to the connection reference of the service option connection corresponding to this call; otherwise, the mobile station shall set the CON\_REF\_INCL field of the message to '1' and the CON\_REF field of the message to the connection reference of the service option connection corresponding to this call.

- 1       The Call Control instance shall enter the *Conversation Substate*.
- 2       • If the Call Control instance receives an indication that the user has originated an  
 3            emergency call (see 2.6.4.3), the mobile station shall send a *Flash With Information*  
 4            *Message* or an *Extended Flash With Information Message* in assured mode with a  
 5            Global Emergency Call Information Record (see 2.7.4.31), as follows:
- 6            - If this Call Control instance is identified by NULL, the mobile station shall send  
 7              either a *Flash With Information Message* or an *Extended Flash With Information*  
 8              *Message* (with either the CON\_REF\_INCL field of the message set to '0' or the  
 9              CON\_REF\_INCL field set to '1' and the CON\_REF field set to the connection  
 10             reference of the service option connection corresponding to this call); otherwise,  
 11             the mobile station shall send an *Extended Flash With Information Message*, with  
 12             the CON\_REF\_INCL field of the message set to '1' and the CON\_REF field of the  
 13             message set to the connection reference of the service option connection  
 14             corresponding to this call.
- 15        • If the Call Control instance receives a message from [layer 3](#)  
 16            which is included in the following list and every message field value is within its permissible  
 17            range, the Call Control instance shall process the message as described below and  
 18            in accordance with the message's action time (see 2.6.4.1.5).
- 19            1. *Alert With Information Message*: The Call Control instance shall reset the  
 20              substate timer for T<sub>53m</sub> seconds. If this message does not contain a Signal  
 21              information record, the mobile station should use standard alert as defined in  
 22              3.7.5.5.
- 23            2. *Extended Alert With Information Message*: The Call Control instance shall reset  
 24              the substate timer for T<sub>53m</sub> seconds. If this message does not contain a Signal  
 25              information record, the mobile station should use standard alert as defined in  
 26              3.7.5.5.
- 27            3. *Maintenance Order*: The mobile station shall reset the substate timer for T<sub>53m</sub>  
 28              seconds.
- 29        • If the Call Control instance receives a message that is not included in the above list,  
 30            cannot be processed, or requires a capability which is not supported, the Call  
 31            Control instance shall discard the message and send a 'message rejected indication'  
 32            to the [layer 3](#), with the reject reason indicated.

### 33       2.6.10.2 Conversation Substate

34       While in the *Conversation Substate*, the Call Control instance shall perform the following:

- 35       • If the Call Control instance receives a "release indication" from the [layer 3](#),  
 36            the Call Control instance shall enter the *Call Release Substate*.

- 1     • The mobile station shall send an *Origination Continuation Message* in assured mode,  
 2       within T<sub>54m</sub> seconds after the Call Control instance entering *the Conversation*  
 3       Substate if any of the following conditions occur:

- 4       – The mobile station originated the call, and did not send all the dialed digits in  
 5        the *Origination Message*.
- 6       – There is more than one calling party number associated with the mobile station.
- 7       – A calling party subaddress is used in the call.
- 8       – A called party subaddress is used in the call.

9       If more than one calling party number is associated with the mobile station, the  
 10      mobile station shall include the calling party number being used in the calling party  
 11      number information record in the *Origination Continuation Message*. If only one  
 12      calling party number is associated with the mobile station, the mobile station shall  
 13      not include the calling party number information record in the *Origination*  
 14      *Continuation Message*. If a calling party subaddress is used, the mobile station shall  
 15      include the calling party subaddress information record in the *Origination*  
 16      *Continuation Message*; otherwise, the mobile station shall omit the calling party  
 17      subaddress information record. If a called party subaddress is used, the mobile  
 18      station shall include the called party subaddress information record in the  
 19      *Origination Continuation Message*; otherwise, the mobile station shall omit the calling  
 20      called party subaddress information record.

- 21     • If the Call Control instance is directed by the user to issue a flash, the mobile  
 22      station shall build a *Flash With Information Message* or an *Extended Flash With*  
 23      *Information Message* with the collected digits or characters contained in a *Keypad*  
 24      *Facility* information record, if needed, and shall send the message in assured mode,  
 25      as follows:
- 26       – If P\_REV\_IN\_USE<sub>s</sub> is less than seven, the mobile station shall send a *Flash With*  
 27       *Information Message*.
- 28       – If P\_REV\_IN\_USE<sub>s</sub> is equal to or greater than seven, the mobile station shall  
 29       perform the following: if this Call Control instance is identified by NULL, the  
 30       mobile station shall send either a *Flash With Information Message* or an  
 31       *Extended Flash With Information Message* (with either the CON\_REF\_INCL field of  
 32       the message set to '0' or the CON\_REF\_INCL field set to '1' and the CON\_REF  
 33       field set to the connection reference of the service option connection  
 34       corresponding to this call); otherwise, the mobile station shall send an *Extended*  
 35       *Flash With Information Message*, with the CON\_REF\_INCL field of the message  
 36       set to '1' and the CON\_REF field of the message set to the connection reference  
 37       of the service option connection corresponding to this call.

- 1     • If the Call Control instance is directed by the user to forward the incoming call, the  
 2       mobile station shall send a *Flash With Information Message* or an *Extended Flash*  
 3       *With Information Message* in assured mode with a *Keypad Facility* information record  
 4       (see 2.7.4.2) with the CHARi field set to a pre-programmed feature code which  
 5       indicates User Selective Call Forwarding with a pre-registered number, as follows:  
 6           - If P\_REV\_IN\_USE<sub>s</sub> is less than seven, the mobile station shall send a *Flash With*  
 7           *Information Message*.  
 8           - If P\_REV\_IN\_USE<sub>s</sub> is equal to or greater than seven, the mobile station shall  
 9           perform the following: if this Call Control instance is identified by NULL, the  
 10          mobile station shall send either a *Flash With Information Message* or an  
 11          *Extended Flash With Information Message* (with either the CON\_REF\_INCL field of  
 12          the message set to '0' or the CON\_REF\_INCL field set to '1' and the CON\_REF  
 13          field set to the connection reference of the service option connection  
 14          corresponding to this call); otherwise, the mobile station shall send an *Extended*  
 15          *Flash With Information Message*, with the CON\_REF\_INCL field of the message  
 16          set to '1' and the CON\_REF field of the message set to the connection reference  
 17          of the service option connection corresponding to this call.  
 18     • If the Call Control instance is directed by the user to forward the incoming call to a  
 19       number stored in the mobile station, the mobile station shall send a *Flash With*  
 20       *Information Message* or an *Extended Flash With Information Message* in assured  
 21       mode with a *Keypad Facility* information record (see 2.7.4.2) with the CHARi field set  
 22       to the following:  
 23           - a pre-programmed feature code which indicates User Selective Call  
 24           Forwarding to a number stored in the mobile station as the first digits in  
 25           the field and  
 26           - the forwarding to number immediately following the pre-programmed  
 27           feature code.

28       The mobile station shall send the message as follows:

- 29           - If P\_REV\_IN\_USE<sub>s</sub> is less than seven, the mobile station shall send a *Flash With*  
 30           *Information Message*.  
 31           - If P\_REV\_IN\_USE<sub>s</sub> is equal to or greater than seven and if this Call Control  
 32           instance is identified by NULL, the mobile station shall send either a *Flash With*  
 33           *Information Message* or an *Extended Flash With Information Message* (with either  
 34           the CON\_REF\_INCL field of the message set to '0' or the CON\_REF\_INCL field set  
 35           to '1' and the CON\_REF field set to the connection reference of the service option  
 36           connection corresponding to this call). Otherwise, the mobile station shall send  
 37           an *Extended Flash With Information Message*, with the CON\_REF\_INCL field of  
 38           the message set to '1' and the CON\_REF field of the message set to the  
 39           connection reference of the service option connection corresponding to this call.

- If the Call Control instance is directed by the user to forward the incoming call to network-based voice mail, the mobile station shall send a *Flash With Information Message* or an *Extended Flash With Information Message* in assured mode with a *Keypad Facility* information record (see 2.7.4.2) with the CHARi field set to a pre-programmed feature code which indicates User Selective Call Forwarding to voice mail, as follows:
  - If P\_REV\_IN\_USE<sub>S</sub> is less than seven, the mobile station shall send a *Flash With Information Message*.
  - If P\_REV\_IN\_USE<sub>S</sub> is equal to or greater than seven and if this Call Control instance is identified by NULL, the mobile station shall send either a *Flash With Information Message* or an *Extended Flash With Information Message* (with either the CON\_REF\_INCL field of the message set to '0' or the CON\_REF\_INCL field set to '1' and the CON\_REF field set to the connection reference of the service option connection corresponding to this call). Otherwise, the mobile station shall send an *Extended Flash With Information Message*, with the CON\_REF\_INCL field of the message set to '1' and the CON\_REF field of the message set to the connection reference of the service option connection corresponding to this call.
- If the Call Control instance is directed by the user to activate answer holding, the mobile station shall send a *Flash With Information Message* or an *Extended Flash With Information Message* in assured mode requiring confirmation of delivery with a *Keypad Facility* information record (see 2.7.4.2) with the CHARi field set to a pre-programmed feature code which indicates Answer Holding, as follows:
  - If P\_REV\_IN\_USE<sub>S</sub> is less than seven, the mobile station shall send a *Flash With Information Message*.
  - If P\_REV\_IN\_USE<sub>S</sub> is equal to or greater than seven, the mobile station shall perform the following: if this Call Control instance is identified by NULL, the mobile station shall send either a *Flash With Information Message* or an *Extended Flash With Information Message* (with either the CON\_REF\_INCL field of the message set to '0' or the CON\_REF\_INCL field set to '1' and the CON\_REF field set to the connection reference of the service option connection corresponding to this call); otherwise, the mobile station shall send an *Extended Flash With Information Message*, with the CON\_REF\_INCL field of the message set to '1' and the CON\_REF field of the message set to the connection reference of the service option connection corresponding to this call.

- 1     • If answer holding is activated and the Call Control instance is directed by the user  
2       to deactivate answer holding, the mobile station shall send a *Flash With Information*  
3       *Message* or an *Extended Flash With Information Message* in assured mode with a  
4       *Keypad Facility* information record (see 2.7.4.2) with the CHARi field set to a pre-  
5       programmed feature code which indicates Answer Holding, as follows:  
6           - If P\_REV\_IN\_USE<sub>s</sub> is less than seven, the mobile station shall send a *Flash With*  
7       *Information Message*.  
8           - If P\_REV\_IN\_USE<sub>s</sub> is equal to or greater than seven, the mobile station shall  
9       perform the following: if this Call Control instance is identified by NULL, the  
10      mobile station shall send either a *Flash With Information Message* or an  
11      *Extended Flash With Information Message* (with either the CON\_REF\_INCL field of  
12      the message set to '0' or the CON\_REF\_INCL field set to '1' and the CON\_REF  
13      field set to the connection reference of the service option connection  
14      corresponding to this call); otherwise, the mobile station shall send an *Extended*  
15      *Flash With Information Message*, with the CON\_REF\_INCL field of the message  
16      set to '1' and the CON\_REF field of the message set to the connection reference  
17      of the service option connection corresponding to this call.  
18     • If the Call Control instance is directed by the user to send burst DTMF digits, the  
19      mobile station shall build the *Send Burst DTMF Message* with the dialed digits and  
20      shall send the message in assured mode requiring confirmation of delivery.  
21           - If P\_REV\_IN\_USE<sub>s</sub> is equal to or greater than seven, the mobile station shall  
22       perform the following: If this Call Control instance is identified by NULL, the  
23       mobile station shall set the CON\_REF\_INCL field of the message to '0'; otherwise,  
24       the mobile station shall set the CON\_REF\_INCL field of the message to '1' and  
25       the CON\_REF field of the message to the connection reference of the service  
26       option connection corresponding to this call.

27     The mobile station sending multiple *Send Burst DTMF Messages* shall preserve  
28     relative ordering of these messages (see 1.6 of [4]). The mobile station should  
29     attempt to preserve the user timing as much as possible, using recommended values  
30     of DTMF\_ON\_LENGTH (see Table 2.7.2.3.2.7-1) and DTMF\_OFF\_LENGTH (see Table  
31     2.7.2.3.2.7-2).

- 32     • If the Call Control instance is directed by the user to send a continuous DTMF digit,  
33       the mobile station shall build the *Continuous DTMF Tone Order* with the dialed digit  
34       and shall send the order in assured mode requiring confirmation of delivery, as  
35       follows:

- 1        - If P\_REV\_IN\_USE<sub>S</sub> is equal to or greater than seven, the mobile station shall  
 2              perform the following: If this Call Control instance is identified by NULL, the  
 3              mobile station shall either set the CON\_REF\_INCL field of the message to '0' or  
 4              set the CON\_REF\_INCL field to '1' and set the CON\_REF field to the connection  
 5              reference of the service option connection corresponding to this call; otherwise,  
 6              the mobile station shall set the CON\_REF\_INCL field of the message to '1' and  
 7              the CON\_REF field of the message to the connection reference of the service  
 8              option connection corresponding to this call.

9        When the Call Control instance is directed by the user to cease sending the  
 10      continuous DTMF digit, the mobile station shall send the *Continuous DTMF Tone  
             Order* (ORDQ = '11111111') in assured mode requiring confirmation of delivery, as  
 12      follows:

- 13        - If P\_REV\_IN\_USE<sub>S</sub> is equal to or greater than seven, the mobile station shall  
 14              perform the following: If this Call Control instance is identified by NULL, the  
 15              mobile station shall either set the CON\_REF\_INCL field of the message to '0' or  
 16              set the CON\_REF\_INCL field to '1' and set the CON\_REF field to the connection  
 17              reference of the service option connection corresponding to this call; otherwise,  
 18              the mobile station shall set the CON\_REF\_INCL field of the message to '1' and  
 19              the CON\_REF field of the message to the connection reference of the service  
 20              option connection corresponding to this call.

21        The mobile station sending multiple *Continuous DTMF Tone Orders* shall preserve  
 22      relative ordering of these messages (see [2]). The mobile station shall send the  
 23      *Continuous DTMF Tone Order* with the ORDQ set to '11111111' indicating the  
 24      completion of the current continuous DTMF digit before sending the *Continuous  
             DTMF Tone Order* for another digit or the *Send Burst DTMF Message*.

- 26        • If the Call Control instance is directed by the user to disconnect the call, the Call  
 27              Control instance shall send a 'call release request' to the [layer 3](#)  
 28              and shall enter the *Call Release Substate*.
- 29        • If the Call Control instance receives an indication that this packet data service  
 30              instance has been inactivated, the Call Control instance shall send a "call inactive  
 31              indication" to the [layer 3](#)  
 32              and shall enter the *Call Release Substate*.
- 33        • If the Call Control instance receives an indication that the user has originated an  
 34              emergency call (see 2.6.4.3), the mobile station shall send a *Flash With Information  
             Message* or an *Extended Flash With Information Message* in assured mode with a  
 35              Global Emergency Call Information Record (see 2.7.4.31), as follows:

- 1        – If this Call Control instance is identified by NULL, the mobile station shall send  
 2        either a *Flash With Information Message* or an *Extended Flash With Information*  
 3        *Message* (with either the CON\_REF\_INCL field of the message set to ‘0’ or the  
 4        CON\_REF\_INCL field set to ‘1’ and the CON\_REF field set to the connection  
 5        reference of the service option connection corresponding to this call); otherwise,  
 6        the mobile station shall send an *Extended Flash With Information Message*, with  
 7        the CON\_REF\_INCL field of the message set to ‘1’ and the CON\_REF field of the  
 8        message set to the connection reference of the service option connection  
 9        corresponding to this call.
- 10      • If the Call Control instance receives a message from the [layer 3](#) which is  
 11     included in the following list and every message field value is within its permissible  
 12     range, the Call Control instance shall process the message as described below and  
 13     in accordance with the message’s action time (see 2.6.4.1.5).
- 14      1. *Alert With Information Message*: If the message contains a Signal information  
 15     record with the SIGNAL\_TYPE field set to ‘01’ or ‘10’, or if the message does not  
 16     contain a Signal information record, the Call Control instance shall enter the  
 17     *Waiting For Mobile Station Answer Substate*. The mobile station should alert the  
 18     user in accordance with the Signal information record. If this message does not  
 19     contain a Signal information record, the mobile station should use standard  
 20     alert as defined in 3.7.5.5.
- 21      2. *Continuous DTMF Tone Order*
- 22      3. *Extended Alert With Information Message*: If the message contains a Signal  
 23     information record with the SIGNAL\_TYPE field set to ‘01’ or ‘10’, or if the  
 24     message does not contain a Signal information record, the Call Control instance  
 25     shall enter the *Waiting For Mobile Station Answer Substate*. The mobile station  
 26     should alert the user in accordance with the Signal information record. If this  
 27     message does not contain a Signal information record, the mobile station should  
 28     use standard alert as defined in 3.7.5.5.
- 29      4. *Flash With Information Message*
- 30      5. *Extended Flash With Information Message*
- 31      6. *Maintenance Order*: The Call Control instance shall enter the *Waiting for Mobile*  
 32     *Station Answer Substate*.
- 33      7. *Send Burst DTMF Message*:
- 34      • If the Call Control instance receives a message that is not included in the above list,  
 35     cannot be processed, or requires a capability which is not supported, the Call  
 36     Control instance shall discard the message and send a ‘message rejected indication’  
 37     to the [layer 3](#), with the reject reason indicated.

## 1    2.6.10.3 Call Release Substate

2    In this substate, the Call Control instance waits for the call to be released.

3    While in the *Call Release Substate*, the Call Control instance shall perform the following:

- 4    • If the Call Control instance receives a message from the layer 3Layer 3 which is  
5    included in the following list and every message field value is within its permissible  
6    range, the Call Control instance shall process the message as described below and  
7    in accordance with the message's action time (see 2.6.4.1.5).

8       1. *Alert With Information Message*: The Call Control instance shall send an “enter  
9    traffic channel substate indication” to the layer 3Layer 3 and shall enter the  
10   *Waiting for Mobile Station Answer Substate*. If this message does not contain a  
11   Signal information record, the mobile station should use standard alert as  
12   defined in 3.7.5.5.

13      2. *Extended Alert With Information Message*: The Call Control instance shall send a  
14   “enter traffic channel substate indication” to layer 3Layer 3 and shall enter the  
15   *Waiting for Mobile Station Answer Substate*. If this message does not contain a  
16   Signal information record, the mobile station should use standard alert as  
17   defined in 3.7.5.5.

- 18   • If the Call Control instance receives a message that is not included in the above list,  
19   cannot be processed, or requires a capability which is not supported, the Call  
20   Control instance shall discard the message and send a ‘message rejected indication’  
21   to the layer 3Layer 3, with the reject reason indicated.

22   2.6.11 SYNC\_ID Computation

23   ~~The SYNC\_ID shall be calculated on all bits within the service configuration (that is, both  
24   the Service Configuration information record and the Non-negotiable Service Configuration  
25   information record).~~

26   ~~The generator polynomials for computation of the SYNC\_ID shall be as follows:~~

$$g(x) = x^{16} + x^{15} + x^{14} + x^{11} + x^6 + x^5 + x^2 + x + 1$$

28   ~~The SYNC\_ID shall be computed according to the following procedure as shown in Figures  
29   2.6.11.1:~~

- 30   • ~~Initially, all shift register elements shall be set to logical one and the switches  
31   shall be set in the up position.~~
- 32   • ~~The register shall be clocked a number of times equal to the number bits in the  
33   service configuration (that is, both the Service Configuration information record  
34   and the Non-negotiable Service Configuration information record) with  
35   those bits as input. The Service Configuration information record bits shall  
36   be input first (starting with the first field of the record) followed by the Non-  
37   negotiable Service Configuration information record bits (starting at the first  
38   field of the record).~~

- 1     • The switches shall be set in the down position so that the output is a modulo 2  
2       addition with a '0' and the successive shift register inputs are '0'.  
  
 3     • The register shall be clocked an additional 16 times.  
  
 4     • These additional bits shall be the SYNC\_ID.  
  
 5     • The first bit calculated shall be the most significant bit of SYNC\_ID.

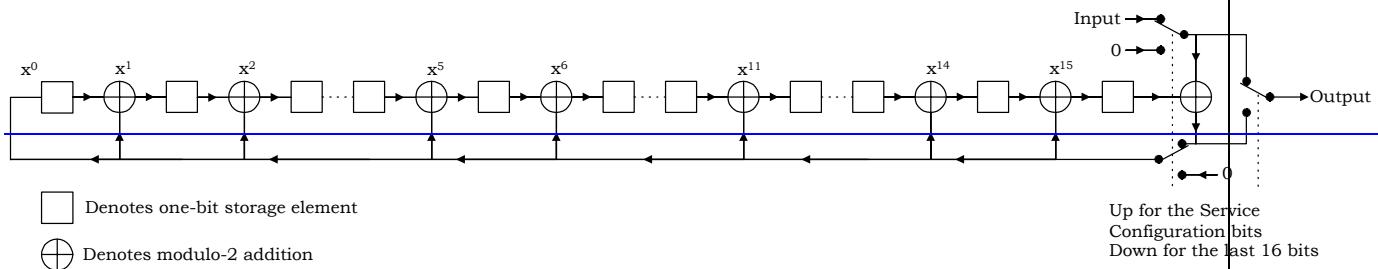


Figure 2.6.11-1. SYNC\_ID Calculation

1    2.7 PDU Formats for Mobile Stations

2    This section describes the formats of the PDUs corresponding to the messages sent by the  
3    mobile station.

4    In any multi-bit field in the following messages, the most significant bit (MSB) shall be  
5    transmitted first.

6    Some bits in the PDUs are marked as RESERVED. These bits allow extension of the PDUs  
7    for future features and capabilities. The mobile station sets all reserved bits to '0'.

- 1    2.7.1 r-csch
- 2    This section describes the messages and their PDU formats sent by the mobile station on  
3    the r-csch.
- 4    2.7.1.1 Reserved
- 5    2.7.1.2 Reserved
- 6    2.7.1.3 PDU Formats on r-csch
- 7    The messages sent on the r-csch are summarized in Table 2.7.1.3-1.
- 8

**Table 2.7.1.3-1. Messages on r-csch**

| <b>Message Name</b>                              | <b>MSG_TAG</b> | <b>Section Number</b> |
|--------------------------------------------------|----------------|-----------------------|
| <i>Registration Message</i>                      | RGM            | 2.7.1.3.2.1           |
| <i>Order Message</i>                             | ORDM           | 2.7.1.3.2.2           |
| <i>Data Burst Message</i>                        | DBM            | 2.7.1.3.2.3           |
| <i>Origination Message</i>                       | ORM            | 2.7.1.3.2.4           |
| <i>Page Response Message</i>                     | PRM            | 2.7.1.3.2.5           |
| <i>Authentication Challenge Response Message</i> | AUCRM          | 2.7.1.3.2.6           |
| <i>Status Response Message</i>                   | STRPM          | 2.7.1.3.2.7           |
| <i>TMSI Assignment Completion Message</i>        | TACM           | 2.7.1.3.2.8           |
| <i>PACA Cancel Message</i>                       | PACNM          | 2.7.1.3.2.9           |
| <i>Extended Status Response Message</i>          | ESTRPM         | 2.7.1.3.2.10          |
| <i>Device Information Message</i>                | DIM            | 2.7.1.3.2.11          |
| <i>Security Mode Request Message</i>             | SMRM           | 2.7.1.3.2.12          |

- 10    2.7.1.3.1 Reserved
- 11    2.7.1.3.2 PDU Contents
- 12    The following sections specify the contents of the PDU for each message that may be sent  
13    on the r-csch.

## 1    2.7.1.3.2.1 Registration Message

2    MSG\_TAG: RGM

3

| <b>Field</b>             | <b>Length (bits)</b> |
|--------------------------|----------------------|
| REG_TYPE                 | 4                    |
| SLOT_CYCLE_INDEX         | 3                    |
| MOB_P_REV                | 8                    |
| SCM                      | 8                    |
| MOB_TERM                 | 1                    |
| RETURN_CAUSE             | 4                    |
| QPCH_SUPPORTED           | 0 or 1               |
| ENHANCED_RC              | 0 or 1               |
| UZID_INCL                | 0 or 1               |
| UZID                     | 0 or 16              |
| GEO_LOC_INCL             | 0 or 1               |
| GEO_LOC_TYPE             | 0 or 3               |
| OTD_SUPPORTED            | 0 or 1               |
| STS_SUPPORTED            | 0 or 1               |
| 3X_CCH_SUPPORTED         | 0 or 1               |
| WLL_INCL                 | 0 or 1               |
| WLL_DEVICE_TYPE          | 0 or 3               |
| HOOK_STATUS              | 0 or 4               |
| ENC_INFO_INCL            | 0 or 1               |
| SIG_ENCRYPT_SUP          | 0 or 8               |
| <u>C_SIG_ENCRYPT_REQ</u> | 0 or 1               |
| <u>KEY_SEQ_NEW_INCL</u>  | <u>0 or 1</u>        |
| <u>KEY_SEQ_NEW</u>       | <u>0 or 4</u>        |
| ENC_SEQ_H                | 0 or 24              |
| ENC_SEQ_H_SIG            | 0 or 8               |
| UI_ENCRYPT_SUP           | 0 or 8               |

4

5    REG\_TYPE    -    Registration type.

6    This field indicates which type of event generated the  
7    registration attempt.8    The mobile station shall set this field to the REG\_TYPE value  
9    shown in Table 2.7.1.3.2.1-1 corresponding to the event that  
10   caused this registration to occur (see 2.6.5.1).

1

2

**Table 2.7.1.3.2.1-1. Registration Type (REG\_TYPE) Codes**

| <b>REG_TYPE<br/>(binary)</b>            | <b>Type of Registration</b>                         |
|-----------------------------------------|-----------------------------------------------------|
| 0000                                    | Timer-based (see 2.6.5.1.3)                         |
| 0001                                    | Power-up (see 2.6.5.1.1)                            |
| 0010                                    | Zone-based (see 2.6.5.1.5)                          |
| 0011                                    | Power-down (see 2.6.5.1.2)                          |
| 0100                                    | Parameter-change (see 2.6.5.1.6)                    |
| 0101                                    | Ordered (see 2.6.5.1.7)                             |
| 0110                                    | Distance-based (see 2.6.5.1.4)                      |
| 0111                                    | User Zone-based (see 2.6.5.1.10)                    |
| <u>1000</u>                             | <u>Encryption Re-sync required (see 2.6.5.1.11)</u> |
| All other REG_TYPE values are reserved. |                                                     |

3

- 4      SLOT\_CYCLE\_INDEX    - Slot cycle index.  
       If the mobile station is configured for slotted mode operation,  
       the mobile station shall set this field to the preferred slot cycle  
       index, SLOT\_CYCLE\_INDEX<sub>p</sub> (see 2.6.2.1.1). Otherwise, the  
       mobile station shall set this field to '000'.  
 5  
 6  
 7  
 8
- 9      MOB\_P\_REV    - Protocol revision of the mobile station.  
       The mobile station shall set this field to '00000111'.  
 10  
 11     SCM    - Station class mark.  
       The mobile station shall set this field to its station class mark.  
       See 2.3.3.  
 12  
 13
- 14     MOB\_TERM    - Mobile terminated calls accepted indicator.  
       If the mobile station is configured to accept mobile terminated  
       calls while operating with the current roaming status (see  
       2.6.5.3), the mobile station shall set this bit to '1'. Otherwise,  
       the mobile station shall set this bit to '0'.  
 15  
 16  
 17  
 18
- 19     RETURN\_CAUSE    - Reason of the mobile station registration or access.  
       The mobile station shall set this field to the RETURN\_CAUSE  
       value shown in Table 2.7.1.3.2.1-2 corresponding to the  
       service redirection failure condition (see 2.6.1.1).  
 20  
 21  
 22

23

**Table 2.7.1.3.2.1-2. RETURN\_CAUSE Codes**

| <b>RETURN_CAUSE<br/>(binary)</b>            | <b>Redirect Failure Condition</b>                                 |
|---------------------------------------------|-------------------------------------------------------------------|
| 0000                                        | Normal access.                                                    |
| 0001                                        | Service redirection failed as a result of system not found.       |
| 0010                                        | Service redirection failed as a result of protocol mismatch.      |
| 0011                                        | Service redirection failed as a result of registration rejection. |
| 0100                                        | Service redirection failed as a result of wrong SID.              |
| 0101                                        | Service redirection failed as a result of wrong NID.              |
| All other RETURN_CAUSE values are reserved. |                                                                   |

- QPCH\_SUPPORTED – Quick Paging Channel supported indicator.  
If P\_REV\_IN\_USE<sub>S</sub> is less than six, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.  
If the mobile station supports the Quick Paging Channel, the mobile station shall set this field to ‘1’; otherwise, the mobile station shall set this field to ‘0’.
- ENHANCED\_RC – Enhanced radio configuration supported indicator.  
If P\_REV\_IN\_USE<sub>S</sub> is less than six, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.  
If the mobile station supports any radio configuration in the Radio Configuration Class 2 (see 1.1.1), the mobile station shall set this field to ‘1’; otherwise, the mobile station shall set this field to ‘0’.
- UZID\_INCL – User Zone Identifier included indicator.  
If P\_REV\_IN\_USE<sub>S</sub> is less than six, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.  
If the message is to contain the User Zone Identifier, the mobile station shall set this field to ‘1’; otherwise, the mobile station shall set this field to ‘0’.
- UZID – User Zone Identifier.

- If the UZID\_INCL is included in the message and is set to '1', the mobile station shall include this field and set it to UZID<sub>S</sub>; otherwise, the mobile station shall omit this field.
- GEO\_LOC\_INCL**
- Geo-location included indicator.
- If P\_REV\_IN\_USE<sub>S</sub> is less than seven, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.
- If the message is to contain the GEO\_LOC\_TYPE field, the mobile station shall set this field to '1'; otherwise, the mobile station shall set this field to '0'.
- GEO\_LOC\_TYPE**
- Geo-Location Type.
- If GEO\_LOC\_INCL is included in the message and is set to '1', the mobile station shall include this field and shall set it to the value shown in Table 2.7.1.3.2.4-7; otherwise, the mobile station shall omit this field.
- OTD\_SUPPORTED**
- Orthogonal Transmit Diversity supported.
- If P\_REV\_IN\_USE<sub>S</sub> is less than seven, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.
- The mobile station shall set this field to '1' if Orthogonal Transmit Diversity is supported; otherwise, the mobile station shall set this field to '0'.
- STS\_SUPPORTED**
- Space Time Spreading Transmit Diversity supported.
- If P\_REV\_IN\_USE<sub>S</sub> is less than seven, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.
- The mobile station shall set this field to '1', if Space Time Spreading Transmit Diversity is supported; otherwise, the mobile station shall set this field to '0'.
- 3X\_CCH\_SUPPORTED**
- 3X Common Channels supported.
- If P\_REV\_IN\_USE<sub>S</sub> is less than seven, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.
- The mobile station shall set this field to '1' if the mobile station supports the Spreading Rate 3 common channels (3X BCCH, 3X F-CCCH, and 3X R-EACH); otherwise, the mobile station shall set this field to '0'.
- WLL\_INCL**
- WLL information included indicator.
- If P\_REV\_IN\_USE<sub>S</sub> is less than seven, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.
- If the mobile station is a Wireless Local Loop device, the mobile station shall set this field to '1'; otherwise, the mobile station shall set this field to '0'.

- 1        WLL\_DEVICE\_TYPE – WLL device type indicator.  
 2              If WLL\_INCL is not included, or if WLL\_INCL is included and is  
 3              set to '0', the mobile station shall omit this field; otherwise,  
 4              the mobile station shall set this field as follows.  
 5              The mobile station shall set this field to the  
 6              WLL\_DEVICE\_TYPE value shown in Table 2.7.1.3.2.1-3  
 7              corresponding to the mobile station device type.

8              **Table 2.7.1.3.2.1-3. WLL Device Types**

| <b>WLL_DEVICE_TYPE<br/>(binary)</b> | <b>Description</b>                                 |
|-------------------------------------|----------------------------------------------------|
| 000                                 | Wireless Local Loop terminal with no mobility      |
| 001                                 | Wireless Local Loop terminal with limited mobility |
| 010                                 | Wireless Local Loop terminal with full mobility    |
| 011 - 111                           | Reserved                                           |

- 9  
 10        HOOK\_STATUS – WLL terminal hook status.  
 11              If WLL\_INCL is not included, or if WLL\_INCL is included and is  
 12              set to '0', the mobile station shall omit this field; otherwise,  
 13              the mobile station shall set this field to the value shown in  
 14              Table 2.7.1.3.2.1-4 corresponding to the hook state.

**Table 2.7.1.3.2.1-4. Hook Status Values**

| <b>HOOK_STATUS<br/>(binary)</b> | <b>Description</b>                    |
|---------------------------------|---------------------------------------|
| 0000                            | Subscriber terminal is on-hook        |
| 0001                            | Subscriber terminal is off-hook       |
| 0010                            | Subscriber terminal is stuck off-hook |
| 0011 – 1111                     | Reserved                              |

- ENC\_INFO\_INCL – Encryption fields included.  
 If P\_REV\_IN\_USE<sub>S</sub> is less than seven, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.
- The mobile station shall set this field to ‘1’ if the encryption related fields are included; otherwise the mobile station shall set this field to ‘0’. The mobile station shall set this field to ‘1’ if it is unable to determine the base station support for encryption. The mobile station shall set this field to ‘0’ if the base station does not support encryption or the mobile station does not support any of the encryption modes supported by the base station.
- SIG\_ENCRYPT\_SUP – Signaling Encryption supported indicator.  
 If ENC\_INFO\_INCL is included and is set to ‘1’, the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile station shall set this field to indicate which signaling encryption algorithms are supported by the mobile station.

1 This field consists of the subfields shown in Table 2.7.1.3.2.1-  
 2 5.

3 **Table 2.7.1.3.2.1-5. Encoding of the SIG\_ENCRYPT\_SUP Field**

| Subfield            | Length (bits)      | Subfield Description                                         |  |
|---------------------|--------------------|--------------------------------------------------------------|--|
| CMEA                | 1                  | Support of Cellular Message Encryption Algorithm             |  |
| ECMEA               | 1                  | Support of Enhanced Cellular Message Encryption Algorithm    |  |
| <a href="#">REA</a> | <a href="#">1</a>  | <a href="#">Support of the Rijndael Encryption Algorithm</a> |  |
| RESERVED            | <a href="#">56</a> | Reserved bits                                                |  |

4 If this field is included, the mobile station shall set the  
 5 subfields as follows:

6 The mobile station shall set the CMEA subfield to ‘1’.

7 The mobile station shall set each other subfield to ‘1’ if the  
 8 corresponding signaling [encryption](#) algorithm is supported by  
 9 the mobile station; otherwise, the mobile station shall set the  
 10 subfield to ‘0’.

11 The mobile station shall set the RESERVED subfield to  
 12 ‘000000’.

13 [C\\_SIG\\_ENCRYPT\\_REQ](#) – [Common Channel sSignaling mMessage encryption](#)  
 14 request indicator.

15 If ENC\_INFO\_INCL is included and is set to ‘1’, the mobile  
 16 station shall include this field; otherwise, the mobile station  
 17 shall omit this field. If this field is included, the mobile  
 18 station shall set this field to ‘1’ to request signaling encryption  
 19 to be turned on for signaling messages sent on [f\\_dsch](#), [r\\_dsch](#),  
 20 [f-csch](#), and [r-csch](#), and to ‘0’ to request signaling encryption  
 21 to be turned off for signaling messages sent on [f\\_dsch](#), [r\\_dsch](#),  
 22 [f-csch](#), and [r-csch](#).

23 [KEY\\_SEQ\\_NEW\\_INCL](#) – [The new encryption key sequence number included indicator.](#)

24 [If ENC\\_INFO\\_INCL is included and is set to ‘1’, the mobile](#)  
 25 [station shall include this field; otherwise, the mobile station](#)  
 26 [shall omit this field. If this field is included, the mobile station](#)  
 27 [shall set this field as follows:](#)

28 [If STORE\\_KEYs is equal to ‘1’ and KEY\\_SEQ\\_NEW is included in](#)  
 29 [this message, the mobile station shall set this field to ‘1’;](#)  
 30 [otherwise, the mobile station shall set this field to ‘0’.](#)

31 [KEY\\_SEQ\\_NEW](#) – [The key sequence number corresponding to the new encryption](#)  
 32 [key generated by the mobile station.](#)

If KEY\_SEQ\_NEW\_INCL is included and is set to ‘1’, the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile station shall set this field to KEY\_SEQ\_NEW<sub>s,p</sub>, the sequence number associated with the new encryption key generated by the mobile station.

- ENC\_SEQ\_H - The 24 MSB of the EXT\_ENC\_SEQ
- If ENC\_INFO\_INCL is included and is set to ‘1’, SIG\_ENCRYPT\_SUP is included and the ECMEA or REA subfield in SIG\_ENCRYPT\_SUP is set to ‘1’ and Enhanced Cellular Message Encryption Algorithm is supported by the mobile station, the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile station shall set this field to the 24 most significant bits of the EXT\_ENC\_SEQ to be used as the initial value of crypto sync for both forward and reverse link encryptions.

- ENC\_SEQ\_H\_SIG - The signature of ENC\_SEQ\_H
- If ENC\_SEQ\_H is included, the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile station shall set this field to the digital signature of the ENC\_SEQ\_H computed as described in 2.3.12.4.5.

- UI\_ENCRYPT\_SUP - User information eEncryption supported indicator.
- If ENC\_INFO\_INCL is included and is set to ‘1’, the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile station shall set this field to indicate the supported user information encryption algorithms.

This field consists of the subfields shown in Table 2.7.1.3.2.4-9.

The mobile station shall set each subfield to ‘1’ if the corresponding user information encryption algorithm is supported by the mobile station; otherwise, the mobile station shall set the subfield to ‘0’.

The mobile station shall set the RESERVED subfield to ‘000000’.

## 1    2.7.1.3.2.2 Order Message

2    MSG\_TAG: ORDM

3

| <b>Field</b>                    | <b>Length (bits)</b>               |
|---------------------------------|------------------------------------|
| ORDER                           | 6                                  |
| ADD_RECORD_LEN                  | 3                                  |
| Order-specific fields (if used) | $8 \times \text{ADD\_RECORD\_LEN}$ |

4

5    ORDER    – Order code.

6                 The mobile station shall set this field to the ORDER code  
7                 (see 2.7.3) for this type of *Order Message*.

8    ADD\_RECORD\_LEN    – Additional record length.

9                 The mobile station shall set this field to the number of octets  
10                in the order-specific fields included in this message.

11    order-specific fields    – Order-specific fields.

12                 The mobile station shall include order-specific fields as  
13                specified in 2.7.3.

## 1    2.7.1.3.2.3 Data Burst Message

2    MSG\_TAG: DBM

3

| <b>Field</b> | <b>Length (bits)</b> |
|--------------|----------------------|
| MSG_NUMBER   | 8                    |
| BURST_TYPE   | 6                    |
| NUM_MSGS     | 8                    |
| NUM_FIELDS   | 8                    |

NUM\_FIELDS occurrences of the following field:

|       |   |
|-------|---|
| CHARi | 8 |
|-------|---|

4

- 5    MSG\_NUMBER    -    Message number within the data burst stream.  
 6                      The mobile station shall set this field to the number of this  
 7                      message within the data burst stream.
- 8    BURST\_TYPE    -    Data burst type.  
 9                      The mobile station shall set the value of this field for the type  
 10                     of this data burst as defined in [30]. If the mobile station sets  
 11                     this field equal to '111110', it shall set the first two CHARi  
 12                     fields of this message equal to EXTENDED\_BURST\_TYPE\_INTERNATIONAL as described in  
 13                     the definition of CHARi below. If the mobile station sets this  
 14                     field equal to '111111', it shall set the first two CHARi fields of  
 15                     this message equal to the EXTENDED\_BURST\_TYPE as  
 16                     described in the definition of CHARi below.
- 18    NUM\_MSGS    -    Number of messages in the data burst stream.  
 19                      The mobile station shall set this field to the number of  
 20                      messages within this data burst stream.
- 21    NUM\_FIELDS    -    Number of characters in this message.  
 22                      The mobile station shall set this field to the number of CHARi  
 23                      fields included in this message.
- 24    CHARi    -    Character.  
 25                      The mobile station shall include NUM\_FIELDS occurrences of  
 26                      this field. The mobile station shall set these fields to the  
 27                      corresponding octet of the data burst stream.

If the BURST\_TYPE field of this message is equal to '111110', the first two CHARi octets shall represent a 16 bit EXTENDED\_BURST\_TYPE\_INTERNATIONAL field, which is encoded as shown below. The first ten bits of this field contain a binary mapping of the Mobile Country Code (MCC). Encoding of the MCC shall be as specified in 2.3.1.3. The remaining six bits of the EXTENDED\_BURST\_TYPE\_INTERNATIONAL field shall specify the COUNTRY\_BURST\_TYPE. The mobile station shall set the value of the COUNTRY\_BURST\_TYPE according to the type of this data burst as defined in standards governed by the country where this data burst type is to be used.

| <b>Field</b>           | <b>Length (bits)</b>               |
|------------------------|------------------------------------|
| Mobile Country Code    | 10                                 |
| COUNTRY_BURST_TYPE     | 6                                  |
| Remaining CHARi fields | $8 \times (\text{NUM_FIELDS} - 2)$ |

If the BURST\_TYPE field of this message is equal to '111111', the first two CHARi octets shall represent a single, 16 bit, EXTENDED\_BURST\_TYPE field, as shown below. The mobile station shall set the value of the EXTENDED\_BURST\_TYPE according to the type of this data burst as defined in [30].

| <b>Field</b>                                    | <b>Length (bits)</b>               |
|-------------------------------------------------|------------------------------------|
| EXTENDED_BURST_TYPE<br>(first two CHARi fields) | 16                                 |
| Remaining CHARi fields                          | $8 \times (\text{NUM_FIELDS} - 2)$ |

## 1 2.7.1.3.2.4 Origination Message

2 MSG\_TAG: ORM

3

| <b>Field</b>     | <b>Length (bits)</b> |
|------------------|----------------------|
| MOB_TERM         | 1                    |
| SLOT_CYCLE_INDEX | 3                    |
| MOB_P_REV        | 8                    |
| SCM              | 8                    |
| REQUEST_MODE     | 3                    |
| SPECIAL_SERVICE  | 1                    |
| SERVICE_OPTION   | 0 or 16              |
| PM               | 1                    |
| DIGIT_MODE       | 1                    |
| NUMBER_TYPE      | 0 or 3               |
| NUMBER_PLAN      | 0 or 4               |
| MORE_FIELDS      | 1                    |
| NUM_FIELDS       | 8                    |

NUM\_FIELDS occurrences of the following field:

|       |        |
|-------|--------|
| CHARi | 4 or 8 |
|-------|--------|

|                      |        |
|----------------------|--------|
| NAR_AN_CAP           | 1      |
| PACA_REORIG          | 1      |
| RETURN_CAUSE         | 4      |
| MORE_RECORDS         | 1      |
| ENCRYPTION_SUPPORTED | 0 or 4 |
| PACA_SUPPORTED       | 1      |
| NUM_ALT_SO           | 3      |

NUM\_ALT\_SO occurrences of the following field:

|        |    |
|--------|----|
| ALT_SO | 16 |
|--------|----|

(continues on next page)

1

| <b>Field</b>                         | <b>Length (bits)</b> |
|--------------------------------------|----------------------|
| DRS                                  | 0 or 1               |
| UZID_INCL                            | 0 or 1               |
| UZID                                 | 0 or 16              |
| CH_IND                               | 0 or 2               |
| SR_ID                                | 0 or 3               |
| OTD_SUPPORTED                        | 0 or 1               |
| QPCH_SUPPORTED                       | 0 or 1               |
| ENHANCED_RC                          | 0 or 1               |
| FOR_RC_PREF                          | 0 or 5               |
| REV_RC_PREF                          | 0 or 5               |
| FCH_SUPPORTED                        | 0 or 1               |
| FCH Capability Type-specific fields  | 0 or variable        |
| DCCH_SUPPORTED                       | 0 or 1               |
| DCCH Capability Type-specific fields | 0 or variable        |
| GEO_LOC_INCL                         | 0 or 1               |
| GEO_LOC_TYPE                         | 0 or 3               |
| REV_FCH_GATING_REQ                   | 0 or 1               |
| ORIG_REASON                          | 0 or 1               |
| ORIG_COUNT                           | 0 or 2               |
| STS_SUPPORTED                        | 0 or 1               |
| 3X_CCH_SUPPORTED                     | 0 or 1               |
| WLL_INCL                             | 0 or 1               |
| WLL_DEVICE_TYPE                      | 0 or 3               |
| GLOBAL_EMERGENCY_CALL                | 0 or 1               |
| MS_INIT_POS_LOC_IND                  | 0 or 1               |
| QOS_PARMS_INCL                       | 0 or 1               |
| QOS_PARMS_LEN                        | 0 or 5               |

(continues on next page)

2

3

| <b>Field</b>                                        | <b>Length (bits)</b>                |
|-----------------------------------------------------|-------------------------------------|
| QOS_PARMS                                           | 0 or variable                       |
| QOS_RESERVED                                        | 0 - 7                               |
| ENC_INFO_INCL                                       | 0 or 1                              |
| SIG_ENCRYPT_SUP                                     | 0 or 8                              |
| <u>D_SIG_ENCRYPT_REQ</u>                            | 0 or 1                              |
| <u>KEY_SEQ_NEW_INCL</u><br><u>C SIG ENCRYPT REQ</u> | 0 or 1                              |
| <u>KEY_SEQ_NEW</u>                                  | <u>0 or 4</u>                       |
| ENC_SEQ_H                                           | 0 or 24                             |
| ENC_SEQ_H_SIG                                       | 0 or 8                              |
| UI_ENCRYPT_REQ                                      | 0 or 1                              |
| UI_ENCRYPT_SUP                                      | 0 or 8                              |
| SYNC_ID_INCL                                        | 0 or 1                              |
| <u>SYNC ID LEN</u>                                  | <u>0 or 4</u>                       |
| SYNC_ID                                             | 0 or (8 x<br><u>16SYNC ID LEN</u> ) |
| PREV_SID_INCL                                       | 0 or 1                              |
| PREV_SID                                            | 0 or 15                             |
| PREV_NID_INCL                                       | 0 or 1                              |
| PREV_NID                                            | 0 or 16                             |
| PREV_PZID_INCL                                      | 0 or 1                              |
| PREV_PZID                                           | 0 or 8                              |

If P\_REV\_IN\_USE<sub>s</sub> is equal to or greater than 7, the mobile station shall include the following fields:

|               |                           |
|---------------|---------------------------|
| SO_BITMAP_IND | 0 or 2                    |
| SO_GROUP_NUM  | 0 or 5                    |
| SO_BITMAP     | 0 or 4 ×<br>SO_BITMAP_IND |

1

2

MOB\_TERM – Mobile terminated calls accepted indicator.

3

4

5

6

If the mobile station is configured to accept mobile terminated calls while operating with the current roaming status (see 2.6.5.3), the mobile station shall set this bit to '1'; otherwise, the mobile station shall set this bit to '0'.

- 1      SLOT\_CYCLE\_INDEX    – Slot cycle index.  
 2                             If the mobile station is configured for slotted mode operation,  
 3                             the mobile station shall set this field to the preferred slot cycle  
 4                             index, SLOT\_CYCLE\_INDEX<sub>p</sub> (see 2.6.2.1.1); otherwise, the  
 5                             mobile station shall set this field to ‘000’.
- 6      MOB\_P\_REV    – Protocol revision of the mobile station.  
 7                             The mobile station shall set this field to ‘00000111’.
- 8      SCM    – Station class mark.  
 9                             The mobile station shall set this field to the station class mark  
 10                            of the mobile station. See 2.3.3.
- 11     REQUEST\_MODE    – Requested mode code.  
 12                             The mobile station shall set this field to the value shown in  
 13                            Table 2.7.1.3.2.4-1 corresponding to its current configuration.

**Table 2.7.1.3.2.4-1. REQUEST\_MODE Codes**

| <b>Value (binary)</b> | <b>Requested Mode</b>                    |
|-----------------------|------------------------------------------|
| 000                   | Reserved                                 |
| 001                   | CDMA only                                |
| 010                   | Wide analog only                         |
| 011                   | Either wide analog or CDMA only          |
| 100                   | Narrow analog only                       |
| 101                   | Either narrow analog or CDMA only        |
| 110                   | Either narrow analog or wide analog only |
| 111                   | Narrow analog or wide analog or CDMA     |

- 16
- 17     SPECIAL\_SERVICE    – Special service option indicator.  
 18                             To request a special service option, the mobile station shall set  
 19                             this field to ‘1’. To request the default service option (Service  
 20                             Option 1), the mobile station shall set this field to ‘0’.
- 21     SERVICE\_OPTION    – Requested service option for this origination.  
 22                             If the SPECIAL\_SERVICE field is set to ‘1’, the mobile station  
 23                             shall set this field to the value specified in [30], corresponding  
 24                             to the requested service option. If the SPECIAL\_SERVICE  
 25                             field is set to ‘0’, the mobile station shall omit this field.
- 26     PM    – Privacy mode indicator.  
 27                             To request voice privacy, the mobile station shall set this field  
 28                             to ‘1’; otherwise, the mobile station shall set this field to ‘0’.
- 29     DIGIT\_MODE    – Digit mode indicator.

This field indicates whether the dialed digits are 4-bit DTMF codes or 8-bit ASCII codes using a specified numbering plan.

To originate the call using the binary representation of DTMF digits, the mobile station shall set this field to '0'. To originate the call using ASCII characters, the mobile station shall set this field to '1'.

NUMBER\_TYPE - Type of number.

If the DIGIT\_MODE field is set to '1', the mobile station shall set this field to the NUMBER\_TYPE value shown in Table 2.7.1.3.2.4-2 corresponding to the type of the number as defined in [7], Section 4.5.9. If the DIGIT\_MODE field is set to '0', the mobile station shall omit this field.

**Table 2.7.1.3.2.4-2. Number Types**

| Description             | NUMBER_TYPE<br>(binary) |
|-------------------------|-------------------------|
| Unknown                 | 000                     |
| International number    | 001                     |
| National number         | 010                     |
| Network-specific number | 011                     |
| Subscriber number       | 100                     |
| Reserved                | 101                     |
| Abbreviated number      | 110                     |
| Reserved for extension  | 111                     |

NUMBER\_PLAN - Numbering plan.

If the DIGIT\_MODE field is set to '1', the mobile station shall set this field to the NUMBER\_PLAN value shown in Table 2.7.1.3.2.4-3 corresponding to the requested numbering plan as defined in [7], Section 4.5.9. If the DIGIT\_MODE field is set to '0', the mobile station shall omit this field.

**Table 2.7.1.3.2.4-3. Numbering Plan Identification**

| <b>Description</b>                            | <b>NUMBER_PLAN<br/>(binary)</b> |
|-----------------------------------------------|---------------------------------|
| Unknown                                       | 0000                            |
| ISDN/Telephony numbering plan ([17] and [16]) | 0001                            |
| Data numbering plan ([20])                    | 0011                            |
| Telex numbering plan ([19])                   | 0100                            |
| Private numbering plan                        | 1001                            |
| Reserved for extension                        | 1111                            |
| All other NUMBER_PLAN codes are reserved.     |                                 |

2

3 MORE\_FIELDS

- More dialed digits indicator.

4

5

This field indicates whether additional dialed digits will be sent in a later *Origination Continuation Message*.

6

7

8

If all dialed digits will fit into this message, the mobile station shall set this field to '0'. If not, the mobile station shall set this field to '1'.

9

NUM\_FIELDS

- Number of dialed digits in this message.

10

11

The mobile station shall set this field to the number of dialed digits included in this message.

12

CHARi

- A dialed digit or character.

13

14

15

16

17

18

19

20

The mobile station shall include NUM\_FIELDS occurrences of this field. If the DIGIT\_MODE field is set to '0', the mobile station shall set each occurrence of this field to the code value shown in Table 2.7.1.3.2.4-4 corresponding to the dialed digit. If the DIGIT\_MODE field is set to '1', the mobile station shall set each occurrence of this field to the ASCII representation corresponding to the dialed digit, as specified in [9], with the most significant bit set to '0'.

21

**Table 2.7.1.3.2.4-4. Representation of DTMF Digits**

| <b>Digit</b>                  | <b>Code (binary)</b> | <b>Digit</b> | <b>Code (binary)</b> |
|-------------------------------|----------------------|--------------|----------------------|
| 1                             | 0001                 | 7            | 0111                 |
| 2                             | 0010                 | 8            | 1000                 |
| 3                             | 0011                 | 9            | 1001                 |
| 4                             | 0100                 | 0            | 1010                 |
| 5                             | 0101                 | *            | 1011                 |
| 6                             | 0110                 | #            | 1100                 |
| All other codes are reserved. |                      |              |                      |

- NAR\_AN\_CAP – Narrow analog capability.  
If the mobile station is capable of narrow analog operation, the mobile station shall set this bit to ‘1’; otherwise, the mobile station shall set this bit to ‘0’.
- PACA\_REORIG – PACA re-origination.  
If this is a user directed origination, the mobile station shall set this field to ‘0’. If this is a PACA re-origination, the mobile station shall set this field to ‘1’.
- RETURN\_CAUSE – Reason for the mobile station registration or access.  
The mobile station shall set this field to the RETURN\_CAUSE value shown in Table 2.7.1.3.2.1-2 corresponding to the service redirection failure condition (see 2.6.1.1).
- MORE\_RECORDS – More records indicator.  
This field indicates whether information records will be sent in a later *Origination Continuation Message*. If information records will be sent, the mobile station shall set this field to ‘1’; otherwise, the mobile station shall set this field to ‘0’.
- ENCRYPTION-SUPPORTED – Encryption algorithms supported by the mobile station.  
If P\_REV\_IN\_USE is greater than or equal to 7 or AUTH\_MODE is equal to ‘00’, the mobile station shall omit the ENCRYPTION\_SUPPORTED field. If P\_REV\_IN\_USE is less than 7 and AUTH\_MODE is not equal to ‘00’, the mobile station shall set this field as specified in Table 2.7.1.3.2.4-5.

**Table 2.7.1.3.2.4-5. Encryption Algorithms Supported**

| <b>Description</b>                      | <b>ENCRYPTION_SUPPORTED<br/>(binary)</b> |
|-----------------------------------------|------------------------------------------|
| Basic encryption supported              | 0000                                     |
| Basic and Enhanced encryption supported | 0001                                     |
| Reserved                                | 0010 - 1111                              |

- PACA\_SUPPORTED – CDMA PACA support indication.  
This field identifies the mobile station's support for PACA in CDMA mode. The mobile station shall set this field to '1'.
- NUM\_ALT\_SO – Number of alternative service options.  
If P\_REV\_IN\_USE<sub>s</sub> is less than seven, the mobile station shall set this field to the number of alternative service options it supports other than the one specified in the SERVICE\_OPTION field. The mobile station shall set this field to a value less than or equal to MAX\_NUM\_ALT\_SO<sub>s</sub>.  
If P\_REV\_IN\_USE<sub>s</sub> is equal to or greater than seven, the mobile station shall set this field to the number of alternate service options, which either have no service option group number assigned or do not belong to the same service option group whose bitmap is being included. The alternate service option numbers are other than the one specified in the SERVICE\_OPTION field. The mobile station shall set this field to a value less than or equal to MAX\_NUM\_ALT\_SO<sub>s</sub>.
- ALT\_SO – Alternative service option.  
If P\_REV\_IN\_USE<sub>s</sub> is less than 7, the mobile station shall include NUM\_ALT\_SO occurrences of this field. The mobile station shall set this field to the value specified in [30], corresponding to the alternative service option supported by the mobile station.  
If P\_REV\_IN\_USE<sub>s</sub> is equal to or greater than seven, the mobile station shall include NUM\_ALT\_SO occurrences of this field. The mobile station shall set this field to the service option number defined in TSB58-[30] corresponding to the alternate service options which either have no service option group number assigned or do not belong to the same service option group whose bitmap is included in this message.
- DRS – Data Ready to Send.  
If P\_REV\_IN\_USE<sub>s</sub> is less than six, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.

If there is data to send, the mobile station shall set this field to ‘1’; otherwise, the mobile station shall set this field to ‘0’.

- 3           UZID\_INCL   – User Zone Identifier included indicator.  
4           If P\_REV\_IN\_USE<sub>S</sub> is less than six, the mobile station shall  
5           omit this field; otherwise, the mobile station shall include this  
6           field and set it as follows.  
7           If the message is to contain the User Zone Identifier, the  
8           mobile station shall set this field to ‘1’; otherwise, the mobile  
9           station shall set this field to ‘0’.
- 10          UZID        – User Zone Identifier.  
11          If the UZID\_INCL field is included in the message and is set to  
12           ‘1’, the mobile station shall include this field and set it to  
13           UZID<sub>S</sub>; otherwise, the mobile station shall omit this field.
- 14          CH\_IND      – Channel indicator.  
15          If P\_REV\_IN\_USE<sub>S</sub> is less than six, the mobile station shall  
16           omit this field; otherwise, the mobile station shall include this  
17           field and set it, as shown in Table 2.7.1.3.2.4-6, to request  
18           physical resources.

**Table 2.7.1.3.2.4-6. Channel Indicator**

| <b>CH_IND<br/>(binary)</b> | <b>Channel(s) Requested</b>                          |
|----------------------------|------------------------------------------------------|
| 00                         | Reserved                                             |
| 01                         | Fundamental Channel                                  |
| 10                         | Dedicated Control Channel                            |
| 11                         | Fundamental Channel and Dedicated<br>Control Channel |

- 1                   SR\_ID     – Service reference identifier.  
 2                   If P\_REV\_IN\_USE<sub>S</sub> is less than six, the mobile station shall  
 3                   omit this field; otherwise, the mobile station shall include this  
 4                   field and set it as follows:  
 5                   If the service instance provides a service reference identifier,  
 6                   the mobile station shall set this field to the service reference  
 7                   identifier specified by the service instance. If the service  
 8                   instance does not provide a service reference identifier, the  
 9                   mobile station shall set this field to the smallest unused  
 10                  service reference identifier value between 1 and 6 (inclusive).
- 11                  OTD\_SUPPORTED     – Orthogonal Transmit Diversity supported indicator.  
 12                  If P\_REV\_IN\_USE<sub>S</sub> is less than six, the mobile station shall  
 13                  omit this field; otherwise, the mobile station shall include this  
 14                  field and set it as follows.  
 15                  If the mobile station supports orthogonal transmit diversity, it  
 16                  shall set this field to '1'; otherwise, the mobile station shall set  
 17                  this field to '0'.
- 18                  QPCH\_SUPPORTED     – Quick Paging Channel supported indicator.  
 19                  If P\_REV\_IN\_USE is less than six, the mobile station shall  
 20                  omit this field; otherwise, the mobile station shall include this  
 21                  field and set it as follows.  
 22                  If the mobile station supports the Quick Paging Channel, the  
 23                  mobile station shall set this field to '1'; otherwise, the mobile  
 24                  station shall set this field to '0'.
- 25                  ENHANCED\_RC     – Enhanced radio configuration supported indicator.  
 26                  If P\_REV\_IN\_USE<sub>S</sub> is less than six, the mobile station shall  
 27                  omit this field; otherwise, the mobile station shall include this  
 28                  field and set it as follows.  
 29                  If the mobile station supports any radio configuration in the  
 30                  Radio Configuration Class 2 (see 1.1.1), the mobile station  
 31                  shall set this field to '1'; otherwise, the mobile station shall set  
 32                  this field to '0'.
- 33                  FOR\_RC\_PREF     – Forward Radio Configuration preference.  
 34                  If P\_REV\_IN\_USE<sub>S</sub> is less than six, the mobile station shall  
 35                  omit this field; otherwise, the mobile station shall include this  
 36                  field and set this field as follows.  
 37                  The mobile station shall set this field to its preferred Radio  
 38                  Configuration for the Forward Traffic Channel.
- 39                  REV\_RC\_PREF     – Reverse FCH Radio Configuration Preference.  
 40                  If P\_REV\_IN\_USE<sub>S</sub> is less than six, the mobile station shall  
 41                  omit this field; otherwise, the mobile station shall include this  
 42                  field and set it as follows.  
 43                  The mobile station shall set this field to its preferred Radio  
 44                  Configuration for the Reverse Traffic Channel.

- 1        FCH\_SUPPORTED    - Fundamental Channel supported indicator.  
 2  
 3  
 4  
 5        The mobile station shall set this field to ‘1’ if the mobile  
 6        station supports Fundamental Channel; otherwise, the mobile  
 7        station shall set this field to ‘0’.
- 8        FCH Capability  
 9        Type-specific fields    - Fundamental Channel capability information.  
 10      If the FCH\_SUPPORTED field is included and is set to ‘1’, the  
 11      mobile station shall include this field and set it as defined in  
 12      2.7.4.27.1; otherwise, the mobile station shall omit this field.
- 13      DCCH\_SUPPORTED    - Dedicated Control Channel supported indicator.  
 14      If P\_REV\_IN\_USE<sub>S</sub> is less than six, the mobile station shall  
 15      omit this field; otherwise the mobile station shall include this  
 16      field and set it as follows.  
 17      The mobile station shall set this field to ‘1’ if the mobile  
 18      station supports Dedicated Control Channel; otherwise, the  
 19      mobile station shall set this field to ‘0’.
- 20      DCCH Capability  
 21      Type specific fields    - Dedicated Control Channel capability information.  
 22      If the DCCH\_SUPPORTED field is included and is set to ‘1’,  
 23      the mobile station shall include this field and set it as defined  
 24      in 2.7.4.27.2; otherwise, the mobile station shall omit this  
 25      field.
- 26      GEO\_LOC\_INCL    - Geo-location included indicator.  
 27      If P\_REV\_IN\_USE<sub>S</sub> is less than six, the mobile station shall  
 28      omit this field. If P\_REV\_IN\_USE<sub>S</sub> is equal to six, the mobile  
 29      station shall set this field to ‘0’. Otherwise, the mobile station  
 30      shall include this field and set it as follows.  
 31      If the message is to contain the GEO\_LOC\_TYPE field, the  
 32      mobile station shall set this field to ‘1’; otherwise, the mobile  
 33      station shall set this field to ‘0’.
- 34      GEO\_LOC\_TYPE    - Geo-Location Type.  
 35      If GEO\_LOC\_INCL is included in the message and is set to ‘1’,  
 36      the mobile station shall include this field and shall set it to  
 37      the value shown in Table 2.7.1.3.2.4-7; otherwise, the mobile  
 38      station shall omit this field.

**Table 2.7.1.3.2.4-7. Geo-location Types**

| <b>GEO_LOC_TYPE<br/>(binary)</b>            | <b>Type of Geo-location</b>                                                         |
|---------------------------------------------|-------------------------------------------------------------------------------------|
| 000                                         | No mobile station assisted geo-location capabilities                                |
| 001                                         | IS-801 capable (Advanced Forward Link Triangulation only (AFLT))                    |
| 010                                         | IS-801 capable (Advanced Forward Link Triangulation and Global Positioning Systems) |
| 011                                         | Global Positioning Systems only                                                     |
| All other GEO_LOC_TYPE values are reserved. |                                                                                     |

- 2           REV\_FCH-
- 3           \_GATING\_REQ    - Reverse Fundamental gating mode request indicator.  
 4                          If P\_REV\_IN\_USE is less than six, the mobile station shall  
 5                          omit this field; otherwise, the mobile station shall include this  
 6                          field and set it as follows:  
 7                          If the mobile station requests to turn on the reverse  
 8                          Fundamental Traffic Channel gating mode in Radio  
 9                          Configurations 3, 4, 5, and 6, the mobile station shall set this  
 10                         field to '1'; otherwise, the mobile station shall set this field to  
 11                         '0'.
- 12           ORIG\_REASON    - Re-Origination reason indicator.  
 13                          If P\_REV\_IN\_USE<sub>S</sub> is less than or equal to six, the mobile  
 14                          station shall omit this field; otherwise, the mobile station shall  
 15                          include this field and set it as follows.  
 16                          The mobile station shall set this field to '1' if the mobile  
 17                          station initiates a silent-retry, i.e. an autonomous access re-  
 18                          attempt to re-originate this call without user interaction, after  
 19                          the mobile station received an access attempt failure from the  
 20                          ARQ Sublayer for a user initiated origination; otherwise, the  
 21                          mobile station shall set this field to '0'.
- 22           ORIG\_COUNT     - Re-Origination count.  
 23                          If P\_REV\_IN\_USE<sub>S</sub> is less than or equal to six, the mobile  
 24                          station shall omit this field; otherwise, the mobile station shall  
 25                          include this field and set it as follows.  
 26                          If the ORIG\_REASON is set to '1', the mobile station shall set  
 27                          this field to the number of consecutive silent-retry, i.e. an  
 28                          autonomous access re-attempt that were made to re-originate  
 29                          the call, without user interaction, that were due to the mobile  
 30                          receiving an access attempt failure from the ARQ Sublayer. If  
 31                          the number of consecutive silent-retry is greater than three,  
 32                          the mobile station shall set this field to '11'.

If the ORIG\_REASON is set to '0', the mobile station shall set this field according to Table 2.7.1.3.2.4-8 depending on the number of autonomous re-connection attempts for the desired service (specified by SERVICE\_OPTION) that have failed since the last successful connection [of that desired service<sup>1</sup>](#). The count shall only include attempts since the last power-up.

**Table 2.7.1.3.2.4-8. ORIG\_COUNT field for ORIG\_REASON = '0'**

| <b>Number of autonomous re-origination attempts for the desired service that have failed since the last successful connection</b> | <b>ORIG_COUNT<br/>(binary)</b> |
|-----------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| 0                                                                                                                                 | '00'                           |
| 1, 2, 3 or 4                                                                                                                      | '01'                           |
| 5, 6, 7 or 8                                                                                                                      | '10'                           |
| 9 or more                                                                                                                         | '11'                           |

- STS\_SUPPORTED – STS supported indicator.  
If P\_REV\_IN\_USE<sub>S</sub> is less than seven, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.  
The mobile station shall set this field to '1' if the mobile station supports Space Time Spreading Transmit Diversity; otherwise, the mobile station shall set this field to '0'.
- 3X\_CCH\_SUPPORTED – 3X Common Channels supported.  
If P\_REV\_IN\_USE<sub>S</sub> is less than seven, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.  
The mobile station shall set this field to '1' if the mobile station supports the Spreading Rate 3 common channels (3X BCCH, 3X F-CCCH, and 3X R-EACH); otherwise, the mobile station shall set this field to '0'.
- WLL\_INCL – WLL information included indicator.  
If P\_REV\_IN\_USE<sub>S</sub> is less than seven, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.

---

<sup>1</sup> For example, if the mobile station requests SO<sub>x</sub> in the Origination Message and SO<sub>y</sub> is granted by the base station, the counter associated with SO<sub>x</sub> is reset.

- 1                   If the mobile station is a Wireless Local Loop device, the  
 2                   mobile station shall set this field to '1'; otherwise, the mobile  
 3                   station shall set this field to '0'.
- 4     **WLL\_DEVICE\_TYPE** - WLL device type indicator.  
 5                   If WLL\_INCL is not included, or if WLL\_INCL is included and is  
 6                   set to '0', the mobile station shall omit this field; otherwise,  
 7                   the mobile station shall set this field as follows.  
 8                   The mobile station shall set this field to the  
 9                   **WLL\_DEVICE\_TYPE** value shown in Table 2.7.1.3.2.1-3  
 10                  corresponding to the mobile station device type.
- 11                  **GLOBAL-**  
 12     **\_EMERGENCY\_CALL** - Global Emergency Call indicator.  
 13                  If P\_REV\_IN\_USE<sub>s</sub> is less than seven, the mobile station shall  
 14                  omit this field; otherwise, the mobile station shall include this  
 15                  field and shall set it as follows:  
 16                  The mobile station shall set this field to '1' if the mobile  
 17                  station recognizes that this is an emergency call; otherwise,  
 18                  the mobile station shall set this field to '0'.
- 19     **MS\_INIT\_POS\_LOC\_IND** - Mobile Initiated Position Location Session indicator.  
 20                  If the **GLOBAL\_EMERGENCY\_CALL** field is not included in  
 21                  this message or is included but is set to '0', the mobile station  
 22                  shall omit this field; otherwise, the mobile station shall  
 23                  include this field and shall set it as follows:  
 24                  The mobile station shall set this field to '1' if  
 25                  **MS INIT POS LOC SUP IND<sub>s</sub>** is equal to '1' and if the mobile  
 26                  station is to initiate a position location session associated with  
 27                  this emergency call; otherwise, the mobile station shall set  
 28                  this field to '0'.
- 29     **QOS\_PARMS\_INCL** - Presence indicator for the QoS parameters.  
 30                  If P\_REV\_IN\_USE<sub>s</sub> is less than seven, the mobile station shall  
 31                  omit this field; otherwise the mobile station shall include this  
 32                  field and set it as follows.  
 33                  The mobile station shall set this field to '1', if QoS parameters  
 34                  are included in the message; otherwise the mobile station  
 35                  shall set this field to '0'. The mobile station shall not set this  
 36                  field to '1', if MOB\_QOS<sub>s</sub> is set to '0' or if the inclusion of the  
 37                  QoS parameters would prevent the inclusion of all the dialed  
 38                  digits in the message.
- 39     **QOS\_PARMS\_LEN** - Length of the block of QoS parameters.

If QOS\_PARMS\_INCL is included and is set to ‘1’, the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile station shall set this field to the combined length in octets, of the QOS\_PARMS field and the immediately following QOS\_RESERVED field; otherwise, the mobile station shall omit this field.

- QOS\_PARMS - QoS parameters block.  
 If QOS\_PARMS\_INCL is included and is set to ‘1’, the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile station shall set it to the set of QoS parameter values as defined in accordance with the requirements for the requested service option and/or for the user, per subscription.

- QOS\_RESERVED - QoS reserved bits.  
 If QOS\_PARMS\_INCL is included and is set to ‘1’, the mobile station shall include the minimum number of bits of ‘0’, such that the combined length of the QOS\_PARMS field and of this field is an integer number of octets; otherwise, the mobile station shall omit this field.

- ENC\_INFO\_INCL - Encryption fields included.  
 If P\_REV\_IN\_USE<sub>S</sub> is less than seven, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.

The mobile station shall set this field to ‘1’ if the encryption related fields are included; otherwise the mobile station shall set this field to ‘0’. The mobile station shall set this field to ‘1’ if it is unable to determine the base station support for encryption. The mobile station shall set this field to ‘0’ if the base station does not support encryption or the mobile station does not support any of the encryption modes supported by the base station.

- SIG\_ENCRYPT\_SUP - Signaling eEncryption supported indicator.  
 If ENC\_INFO\_INCL is included and is set to ‘1’, the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, this field indicates which signaling encryption algorithms are supported by the mobile station.

1 This field consists of the subfields shown in Table 2.7.1.3.2.1-  
 2 5.

3 If this field is included, the mobile station shall set the  
 4 subfields as follows:

5 The mobile station shall set the CMEA subfield to '1'.

6 The mobile station shall set each other subfield to '1' if the  
 7 corresponding signaling encryption algorithm is supported by  
 8 the mobile station; otherwise, the mobile station shall set the  
 9 subfield to '0'.

10 The mobile station shall set the RESERVED subfield to  
 11 '000000'. |

12 D SIG\_ENCRYPT\_REQ - Dedicated channel sSignaling Message-encryption request  
 13 indicator.

14 If ENC\_INFO\_INCL is included and is set to '1', the mobile  
 15 station shall include this field; otherwise, the mobile station  
 16 shall omit this field. If this field is included, the mobile  
 17 station shall set this field to '1' to request signaling encryption  
 18 to be turned on for signaling messages sent on f-dsch;and r-  
 19 dsch,f esch, and r esch, and to '0' to request signaling  
 20 encryption to be turned off for signaling messages sent on f-  
 21 dsch and, r-dsch,f esch, and r esch.

22 KEY\_SEQ\_NEW\_INCL - The new encryption key sequence number included indicator.

23 ~~If ENC\_INFO\_INCL is included and is set to '1', the mobile~~  
 24 ~~station shall include this field; otherwise, the mobile station~~  
 25 ~~shall omit this field. If this field is included, the mobile station~~  
 26 ~~shall set this field as follows:~~

27 ~~If STORE\_KEYs is equal to '1' and KEY\_SEQ\_NEW is included in~~  
 28 ~~this message, the mobile station shall set this field to '1';~~  
 29 ~~otherwise, the mobile station shall set this field to '0'.~~

30 C SIG\_ENCRYPT\_REQ - Common channel signaling encryption request indicator.

31 ~~If ENC\_INFO\_INCL is included and is set to '1', the mobile~~  
 32 ~~station shall include this field; otherwise, the mobile station~~  
 33 ~~shall omit this field. If this field is included, the mobile~~  
 34 ~~station shall set this field to '1' to request signaling encryption~~  
 35 ~~to be turned on for signaling messages sent on f-csch and r-~~  
 36 ~~cscsch, and to '0' to request signaling encryption to be turned~~  
 37 ~~off for signaling messages sent on f-csch and r-csch.~~

38 KEY\_SEQ\_NEW - The key sequence number corresponding to the new encryption  
 39 key generated by the mobile station.

40 ~~If KEY\_SEQ\_NEW\_INCL is included and is set to '1', the mobile~~  
 41 ~~station shall include this field; otherwise, the mobile station shall~~  
 42 ~~omit this field. If this field is included, the mobile station shall~~  
 43 ~~set this field to KEY\_SEQ\_NEWS\_p, the sequence number~~  
 44 ~~associated with the new encryption key generated by the mobile~~  
 45 ~~station.~~

- 1           ENC\_SEQ\_H    - The 24 MSB of the EXT\_ENC\_SEQ  
2           If SIG\_ENCRYPT\_SUP is included and the ECMEA or REA  
3           subfield in SIG\_ENCRYPT\_SUP is set to '1', If ENC\_INFO\_INCL  
4           is included and is set to '1', and the Enhanced Cellular  
5           Message Encryption Algorithm is supported by the mobile  
6           station, the mobile station shall include this field; otherwise,  
7           the mobile station shall omit this field. If this field is  
8           included, the mobile station shall set this field to the 24 most  
9           significant bits of the EXT\_ENC\_SEQ to be used as the initial  
10          value of crypto sync for both forward and reverse link  
11          encryptions.
- 12          ENC\_SEQ\_H\_SIG - The signature of ENC\_SEQ\_H  
13          If ENC\_SEQ\_H is included, the mobile station shall include  
14          this field; otherwise, the mobile station shall omit this field. If  
15          this field is included, the mobile station shall set this field to  
16          the digital signature of the ENC\_SEQ\_H as described in  
17          2.3.12.4.5.
- 18          UI\_ENCRYPT\_REQ - Request for user information encryption on the traffic channel  
19          indicator.  
20          If ENC\_INFO\_INCL is included and is set to '1', the mobile  
21          station shall include this field; otherwise, the mobile station  
22          shall omit this field. If this field is included, the mobile  
23          station shall set this field to '1' to request user information  
24          encryption, and to '0' to request no user information  
25          encryption.
- 26          UI\_ENCRYPT\_SUP - User information eEncryption supported indicator.  
27          If ENC\_INFO\_INCL is included and is set to '1', the mobile  
28          station shall include this field; otherwise, the mobile station  
29          shall omit this field. If this field is included, the mobile  
30          station shall set this field to indicate the supported user  
31          information encryption algorithms.

1           This field consists of the subfields shown in Table 2.7.1.3.2.4-  
 2           9.

3           **Table 2.7.1.3.2.4-9. Encoding of the UI\_ENCRYPT\_SUP Field**

| <b>Subfield</b>     | <b>Length (bits)</b> | <b>Subfield Description</b>                                                               |
|---------------------|----------------------|-------------------------------------------------------------------------------------------|
| ORYX                | 1                    | Support for ORYX encryption algorithm                                                     |
| <a href="#">REA</a> | <a href="#">1</a>    | <a href="#">Support for the Rijndael encryption algorithm used in extended encryption</a> |
| RESERVED            | <a href="#">76</a>   | Reserved bits                                                                             |

4           The mobile station shall set each subfield to '1' if the  
 5           corresponding user information encryption algorithm is  
 6           supported by the mobile station; otherwise, the mobile station  
 7           shall set the subfield to '0'.

8           The mobile station shall set the RESERVED subfield to  
 9           '0000000'.  
 10          

11         SYNC\_ID\_INCL - [SCR-Service Configuration](#) synchronization identifier included indicator.  
 12          

13          [If P\\_REV\\_IN\\_USE<sub>s</sub> is less than seven, the mobile station shall omit this field; otherwise, the mobile station shall include this field and shall set it as follows:](#)  
 14          

15          The mobile station shall set this field to '1' if the SYNC\_ID field  
 16           is included in this message; [otherwise, the mobile station shall set this field to '0'.](#)  
 17          

18         SYNC\_ID\_LEN - [Service Configuration synchronization identifier length indicator.](#)  
 19          

20          [If the SYNC\\_ID\\_INCL field is not included or is included and is set to '0', the mobile station shall omit this field; otherwise the mobile station shall include this field and set it as follows:](#)  
 21          

22          [The mobile station shall set this field to the length of the SYNC\\_ID field included in this message.](#)  
 23          

24         SYNC\_ID - [SCR-Service Configuration](#) synchronization identifier.  
 25          

26          [If P\\_REV\\_IN\\_USE<sub>s</sub> is less than seven, the mobile station shall omit this field; otherwise, the mobile station shall include this field and shall set it as follows:](#)  
 27          

28          If the SYNC\_ID\_INCL field is not included, or is included but is set to '0', the mobile station shall omit this field; otherwise,  
 29

1           the mobile station shall include this field and set it as follows:

2           The mobile station shall set this field to the Service  
 3           Configuration synchronization identifier corresponding to the  
 4           stored service configuration.

5           to the 16 bit CRC computed over the entire stored service  
 6           configuration (that is, both the Service Configuration  
 7           information record and the Non-negotiable Service  
 8           Configuration information record) as specified in 2.6.11.

- 9       PREV\_SID\_INCL   - Previous System Identification (SID) included indicator.  
 10      If P\_REV\_IN\_USE is less than seven, the mobile station shall  
 11      omit this field; otherwise, the mobile station shall include this  
 12      field and set it as follows:  
 13      The mobile station shall set this field to '1' if the mobile  
 14      station determines that the SID has been changed after a  
 15      packet data dormant handoff and the PREV\_SID field is  
 16      included in this message; otherwise, the mobile station shall  
 17      set this field to '0'.
- 18       PREV\_SID   - Previous System Identification.  
 19      If PREV\_SID\_INCL is not included, or is included but is set to  
 20      '0', the mobile station shall omit this field; otherwise, the  
 21      mobile station shall include this field and set it as follows:  
 22      If the mobile station determines SID has been changed after a  
 23      packet data dormant handoff, the mobile station shall set this  
 24      field to the previous SID.
- 25       PREV\_NID\_INCL   - Previous Network Identification (NID) included indicator.  
 26      If P\_REV\_IN\_USE is less than seven, the mobile station shall  
 27      omit this field; otherwise, the mobile station shall include this  
 28      field and set it as follows:  
 29      The mobile station shall set this field to '1' if the mobile  
 30      station determines that NID has been changed after a packet  
 31      data dormant handoff and the PREV\_NID field is included in  
 32      this message; otherwise, the mobile station shall set this field  
 33      to '0'.
- 34       PREV\_NID   - Previous Network Identification.  
 35      If PREV\_NID\_INCL is not included, or is included but is set to  
 36      '0', the mobile station shall omit this field; otherwise, the  
 37      mobile station shall include this field and set it as follows:  
 38      If the mobile station determines NID has been changed after a  
 39      packet data dormant handoff, the mobile station shall set this  
 40      field to the previous NID.
- 41       PREV\_PZID\_INCL   - Previous Packet Zone ID (PZID) included indicator.  
 42      If P\_REV\_IN\_USE is less than seven, the mobile station shall  
 43      omit this field; otherwise, the mobile station shall include this  
 44      field and set it as follows:

The mobile station shall set this field to ‘1’ if the mobile station determines that the Packet Zone ID has been changed after a packet data dormant handoff and the PREV\_PZID field is included in this message; otherwise, the mobile station shall omit set this field to ‘0’.

- PREV\_PZID - Previous Packet Zone ID.
    - If PREV\_PZID\_INCL is not included, or is included but is set to '0', the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows:
      - If the mobile station determines PZID has been changed after a packet data dormant handoff, the mobile station shall set this field to the previous PZID.
  - BITMAP\_IND - Service option bitmap indicator.
    - If P\_REV\_IN\_USE<sub>s</sub> is less than 7, the mobile station shall omit this field; otherwise, the mobile station shall set this field as defined in Table 2.7.1.3.2.4-10.

**Table 2.7.1.3.2.4-10. Encoding of the SO\_BITMAP\_IND Field**

| <b>SO_BITMAP_IND</b> | <b>Size of bitmap (in bits) included</b> |
|----------------------|------------------------------------------|
| 00                   | 0 bit (i.e., No bitmap included)         |
| 01                   | 4 bits                                   |
| 10                   | 8 bits                                   |
| 11                   | Reserved                                 |

- |              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SO_GROUP_NUM | - Service option group number.<br><br>If SO_BITMAP_IND is included and not set to '00', the mobile station shall include this field and set this field to service option group number defined in <a href="#">TSB58[30]</a> , of the bitmap to be included in this message; otherwise, the mobile station shall omit this field.                                                                                                                                                                                                                                                                             |
| SO_BITMAP    | - Service option bitmap.<br><br>If the field SO_BITMAP_IND is included and is not set to '00', the mobile station shall include the bitmap of the service option group (SO_GROUP_NUM); otherwise, the mobile station shall omit this field.<br><br>When the service option bitmap is included, if there are more than $(4 \times \text{SO_BITMAP_IND})$ service options defined in <a href="#">TSB58[30]</a> for the service option group [SO_GROUP_NUM], the mobile station shall include the bitmap containing the least significant bits $(4 \times \text{SO_BITMAP_IND})$ for the service option group. |

1           The mobile station shall set a bit in this bitmap to '1', if the  
2           mobile station is capable of supporting the service option for  
3           which the bit represents; otherwise, the mobile station shall  
4           set a bit in this bitmap to '0'.

## 1 2.7.1.3.2.5 Page Response Message

2 MSG\_TAG: PRM

3

| <b>Field</b>         | <b>Length (bits)</b> |
|----------------------|----------------------|
| MOB_TERM             | 1                    |
| SLOT_CYCLE_INDEX     | 3                    |
| MOB_P_REV            | 8                    |
| SCM                  | 8                    |
| REQUEST_MODE         | 3                    |
| SERVICE_OPTION       | 16                   |
| PM                   | 1                    |
| NAR_AN_CAP           | 1                    |
| ENCRYPTION_SUPPORTED | 0 or 4               |
| NUM_ALT_SO           | 3                    |

NUM\_ALT\_SO occurrences of the following field:

|        |    |
|--------|----|
| ALT_SO | 16 |
|--------|----|

(continues on next page)

4

1

| <b>Field</b>                         | <b>Length (bits)</b> |
|--------------------------------------|----------------------|
| UZID_INCL                            | 0 or 1               |
| UZID                                 | 0 or 16              |
| CH_IND                               | 0 or 2               |
| OTD_SUPPORTED                        | 0 or 1               |
| QPCH_SUPPORTED                       | 0 or 1               |
| ENHANCED_RC                          | 0 or 1               |
| FOR_RC_PREF                          | 0 or 5               |
| REV_RC_PREF                          | 0 or 5               |
| FCH_SUPPORTED                        | 0 or 1               |
| FCH Capability Type-specific fields  | 0 or variable        |
| DCCH_SUPPORTED                       | 0 or 1               |
| DCCH Capability Type-specific fields | 0 or variable        |
| REV_FCH_GATING_REQ                   | 0 or 1               |
| STS_SUPPORTED                        | 0 or 1               |
| 3X_CCH_SUPPORTED                     | 0 or 1               |
| WLL_INCL                             | 0 or 1               |
| WLL_DEVICE_TYPE                      | 0 or 3               |
| HOOK_STATUS                          | 0 or 4               |
| ENC_INFO_INCL                        | 0 or 1               |
| SIG_ENCRYPT_SUP                      | 0 or 8               |
| <u>D SIG_ENCRYPT_REQ</u>             | 0 or 1               |
| <u>KEY_SEQ_NEW_INCL</u>              | 0 or 1               |
| <u>C SIG_ENCRYPT_REQ</u>             | 0 or 1               |
| <u>KEY_SEQ_NEW</u>                   | 0 or 4               |
| ENC_SEQ_H                            | 0 or 24              |
| ENC_SEQ_H_SIG                        | 0 or 8               |
| UI_ENCRYPT_REQ                       | 0 or 1               |
| UI_ENCRYPT_SUP                       | 0 or 8               |

(continues on next page)

2

1

| <b>Field</b>                | <b>Length (bits)</b>                     |
|-----------------------------|------------------------------------------|
| SYNC_ID_INCL                | 0 or 1                                   |
| <a href="#">SYNC_ID_LEN</a> | <a href="#">0 or 4</a>                   |
| SYNC_ID                     | 0 or <a href="#">(8 x SYNC_ID_LEN)+6</a> |

If P\_REV\_IN\_USE<sub>s</sub> is equal to or greater than 7, the mobile station shall include the following fields:

|               |                        |
|---------------|------------------------|
| SO_BITMAP_IND | 0 or 2                 |
| SO_GROUP_NUM  | 0 or 5                 |
| SO_BITMAP     | 0 or 4 × SO_BITMAP_IND |

2

- 3           MOB\_TERM     – Mobile terminated calls accepted indicator.  
 4           If the mobile station is configured to accept mobile terminated  
 5           calls while operating with the current roaming status (see  
 6           2.6.5.3), the mobile station shall set this bit to '1'. Otherwise,  
 7           the mobile station shall set this bit to '0'.
- 8           SLOT\_CYCLE\_INDEX     – Slot cycle index.  
 9           If the mobile station is configured for slotted mode operation,  
 10          the mobile station shall set this field to the preferred slot cycle  
 11          index, SLOT\_CYCLE\_INDEX<sub>p</sub> (see 2.6.2.1.1). Otherwise, the  
 12          mobile station shall set this field to '000'.
- 13          MOB\_P\_REV     – Protocol revision of the mobile station.  
 14          The mobile station shall set this field to '00000111'.
- 15          SCM     – Station class mark.  
 16          The mobile station shall set this field to the station class mark  
 17          of the mobile station. See 2.3.3.
- 18          REQUEST\_MODE     – Requested mode code. The mobile station shall set this field  
 19          to the value shown in Table 2.7.1.3.2.4-1 corresponding to its  
 20          current configuration.
- 21          SERVICE\_OPTION     – Service option.  
 22          If the mobile station accepts the service option specified by the  
 23          mobile-station-addressed page, it shall set this field as follows:  
 24           • If the page record to which the mobile station is  
 25            responding contained a SERVICE OPTION field, the mobile  
 26            station shall set this field to the service option number  
 27            specified in the SERVICE OPTION field of the page record  
 28            to which the mobile station is responding.  
 29           • If the page record to which the mobile station is  
 30            responding did not contain a SERVICE OPTION field, the

1 mobile station shall set this field to the default option  
 2 number '00000000000000000000000000000000'.

3 If the mobile station does not accept the service option  
 4 specified by the mobile-station-addressed page to which the  
 5 mobile station is responding and the mobile station has an  
 6 alternative service option to request, the mobile station shall  
 7 set this field to the service option code specified in [30]  
 8 corresponding to the alternative service option.

9 If the mobile station does not accept the service option  
 10 specified by the mobile-station-addressed page to which the  
 11 mobile station is responding and the mobile station does not  
 12 have an alternative service option to request, the mobile  
 13 station shall set this field to '0000000000000000' to reject the  
 14 service option specified by the page record of the *General Page*  
 15 *Message* or *Universal Page Message* to which the mobile  
 16 station is responding.

17 PM - Privacy mode indicator.

18 To request voice privacy, the mobile station shall set this field  
 19 to '1'; otherwise, the mobile station shall set this field to '0'.

20 NAR\_AN\_CAP - Narrow analog capability.

21 If the mobile station is capable of narrow analog operation, the  
 22 mobile station shall set this bit to '1'; otherwise, the mobile  
 23 station shall set this bit to '0'.

24 ENCRYPTION- - Encryption algorithms supported by the mobile station.

25 \_SUPPORTED If P\_REV\_IN\_USE is greater than or equal to 7 or  
 26 AUTH\_MODE is equal to '00', the mobile station shall omit  
 27 this field. If P\_REV\_IN\_USE is less than 7 and AUTH\_MODE  
 28 is not equal to '00', then the mobile station shall set this field  
 29 as specified in table 2.7.1.3.2.4-5.

30 NUM\_ALT\_SO - Number of alternative service options.

31 If P\_REV\_IN\_USE<sub>S</sub> is less than seven, the mobile station shall  
 32 set this field to the number of alternative service options it  
 33 supports other than the one specified in the  
 34 SERVICE\_OPTION field. The mobile station shall set this field  
 35 to a value less than or equal to MAX\_NUM\_ALT\_SO<sub>S</sub>.

36 If P\_REV\_IN\_USE<sub>S</sub> is equal to or greater than seven, the  
 37 mobile station shall set this field to the number of alternate  
 38 service options, which either have no service option group  
 39 number assigned or do not belong to the same service option  
 40 group whose bitmap is being included. The alternate service  
 41 option numbers are other than the one specified in the  
 42 SERVICE\_OPTION field. The mobile station shall set this field  
 43 to a value less than or equal to MAX\_NUM\_ALT\_SO<sub>S</sub>.

44 ALT\_SO - Alternative service option.

1           The mobile station shall include NUM\_ALT\_SO occurrences of  
 2           this field. The mobile station shall set this field to the value  
 3           specified in [30], corresponding to the alternative service  
 4           option supported by the mobile station.

5           If P\_REV\_IN\_USE<sub>S</sub> is equal to or greater than seven, the  
 6           mobile station shall include NUM\_ALT\_SO occurrences of in  
 7           this field. The mobile station shall set this field to the service  
 8           option number defined in [TSB58-\[30\]](#) corresponding to the  
 9           alternate service options which either have no service option  
 10          group number assigned or do not belong to the same service  
 11          option group whose bitmap is included in this message.

- 12           UZID\_INCL    – User Zone Identifier included indicator.  
                If P\_REV\_IN\_USE<sub>S</sub> is less than six, the mobile station shall  
                omit this field; otherwise, the mobile station shall include this  
                field and set it as follows.  
                If the message is to contain the User Zone Identifier, the  
                mobile station shall set this field to '1'; otherwise, the mobile  
                station shall set this field to '0'.
- 19           UZID        – User Zone Identifier.  
                If the UZID\_INCL field is included in the message and is set to  
                '1', the mobile station shall include this field and set it to  
                UZID<sub>S</sub>; otherwise, the mobile station shall omit this field.
- 23           CH\_IND      – Channel Indicator.  
                If P\_REV\_IN\_USE<sub>S</sub> is less than six, the mobile station shall  
                omit this field; otherwise, the mobile station shall include this  
                field and set it, as shown in Table 2.7.1.3.2.5-1, to request  
                physical resources.

**Table 2.7.1.3.2.5-1. Channel indicator**

| <b>CH_IND<br/>(binary)</b> | <b>Channel(s) Requested</b>                       |
|----------------------------|---------------------------------------------------|
| 00                         | Reserved                                          |
| 01                         | Fundamental Channel                               |
| 10                         | Dedicated Control Channel                         |
| 11                         | Fundamental Channel and Dedicated Control Channel |

- OTD\_SUPPORTED - Orthogonal transmit diversity supported indicator  
If P\_REV\_IN\_USE<sub>S</sub> is less than six, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.  
If the mobile station supports orthogonal transmit diversity, it shall set this field to '1'; otherwise, the mobile station shall set this field to '0'.
- QPCH\_SUPPORTED - Quick Paging Channel supported indicator.  
If P\_REV\_IN\_USE is less than six, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.  
If the mobile station supports the Quick Paging Channel, the mobile station shall set this field to '1'; otherwise, the mobile station shall set this field to '0'.
- ENHANCED\_RC - Enhanced radio configuration supported indicator.  
If P\_REV\_IN\_USE<sub>S</sub> is less than six, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.  
If the mobile station supports any radio configuration in the Radio Configuration Class 2 (see 1.1.1), the mobile station shall set this field to '1'; otherwise, the mobile station shall set this field to '0'.
- FOR\_RC\_PREF - Forward Radio Configuration preference.  
If P\_REV\_IN\_USE<sub>S</sub> is less than six, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.  
The mobile station shall set this field to its preferred Radio Configuration for the Forward Traffic Channel.
- REV\_RC\_PREF - Reverse Radio Configuration preference.  
If P\_REV\_IN\_USE<sub>S</sub> is less than six, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.

- |    |                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|----|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    |                                      | The mobile station shall set this field to its preferred Radio Configuration for the Reverse Traffic Channel.                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 3  | FCH_SUPPORTED                        | <ul style="list-style-type: none"> <li>- Fundamental Channel supported indicator.</li> </ul> <p>If <math>P_{REV\_IN\_USE_S}</math> is less than six, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.</p> <p>The mobile station shall set this field to '1' if the mobile station supports Fundamental Channel; otherwise, the mobile station shall set this field to '0'.</p>                                                                                       |
| 10 | FCH Capability Type-specific fields  | <ul style="list-style-type: none"> <li>- Fundamental Channel capability information.</li> </ul> <p>If the FCH_SUPPORTED field is included and is set to '1', the mobile station shall include this field and set it as described in 2.7.4.27.1; otherwise, the mobile station shall omit this field.</p>                                                                                                                                                                                                                                    |
| 16 | DCCH_SUPPORTED                       | <ul style="list-style-type: none"> <li>- Dedicated Control Channel supported indicator.</li> </ul> <p>If <math>P_{REV\_IN\_USE_S}</math> is less than six, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.</p> <p>The mobile station shall set this field to '1' if the mobile station supports Dedicated Control Channel; otherwise, the mobile station shall set this field to '0'.</p>                                                                           |
| 23 | DCCH Capability Type-specific fields | <ul style="list-style-type: none"> <li>- Dedicated Control Channel capability information.</li> </ul> <p>If DCCH_SUPPORTED is included and is set to '1', the mobile station shall include this field and set it as defined in 2.7.4.27.2; otherwise, the mobile station shall omit this field.</p>                                                                                                                                                                                                                                         |
| 28 | REV_FCH-_GATING_REQ                  | <ul style="list-style-type: none"> <li>- Reverse eighth gating mode request indicator.</li> </ul> <p>If <math>P_{REV\_IN\_USE}</math> is less than six, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows:</p> <p>If the mobile station requests to turn on the reverse Fundamental Traffic Channel gating mode in Radio Configurations 3, 4, 5, and 6, the mobile station shall set this field to '1'; otherwise, the mobile station shall set this field to '0'.</p> |
| 38 | STS_SUPPORTED                        | <ul style="list-style-type: none"> <li>- STS supported indicator.</li> </ul> <p>If <math>P_{REV\_IN\_USE_S}</math> is less than seven, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.</p> <p>The mobile station shall set this field to '1' if the mobile station supports Space Time Spreading Transmit Diversity; otherwise, the mobile station shall set this field to '0'.</p>                                                                                 |

- 1    3X\_CCH\_SUPPORTED    -    3X Common Channels supported.  
 2                         If P\_REV\_IN\_USE<sub>S</sub> is less than seven, the mobile station shall  
 3                         omit this field; otherwise, the mobile station shall include this  
 4                         field and set it as follows.  
 5                         The mobile station shall set this field to '1' if the mobile  
 6                         station supports the Spreading Rate 3 common channels (3X  
 7                         BCCH, 3X F-CCCH, and 3X R-EACH); otherwise, the mobile  
 8                         station shall set this field to '0'.  
 9    WLL\_INCL    -    WLL information included indicator.  
 10                       If P\_REV\_IN\_USE<sub>S</sub> is less than seven, the mobile station shall  
 11                       omit this field; otherwise, the mobile station shall include this  
 12                       field and set it as follows.  
 13                       If the mobile station is a Wireless Local Loop device, the  
 14                       mobile station shall set this field to '1'; otherwise, the mobile  
 15                       station shall set this field to '0'.  
 16    WLL\_DEVICE\_TYPE    -    WLL device type indicator.  
 17                       If WLL\_INCL is not included, or if WLL\_INCL is included and is  
 18                       set to '0', the mobile station shall omit this field; otherwise,  
 19                       the mobile station shall set this field as follows.  
 20                       The mobile station shall set this field to the  
 21                       WLL\_DEVICE\_TYPE value shown in Table 2.7.1.3.2.1-3  
 22                       corresponding to the mobile station device type.  
 23    HOOK\_STATUS    -    WLL terminal hook status.  
 24                       If WLL\_INCL is not included, or if WLL\_INCL is included and is  
 25                       set to '0', the mobile station shall omit this field; otherwise,  
 26                       the mobile station shall set this field to the value shown in  
 27                       Table 2.7.1.3.2.1-4 corresponding to the hook state.  
 28    ENC\_INFO\_INCL    -    Encryption fields included.  
 29                       If P\_REV\_IN\_USE<sub>S</sub> is less than seven, the mobile station shall  
 30                       omit this field; otherwise, the mobile station shall include this  
 31                       field and set it as follows:  
 32                       The mobile station shall set this field to '1' if the encryption  
 33                       related fields are included; otherwise the mobile station shall  
 34                       set this field to '0'. The mobile station shall set this field to '1'  
 35                       if it is unable to determine the base station support for  
 36                       encryption. The mobile station shall set this field to '0' if the  
 37                       base station does not support encryption or the mobile station  
 38                       does not support any of the encryption modes supported by  
 39                       the base station.  
 40    SIG\_ENCRYPT\_SUP    -    Signaling eEncryption supported indicator.  
 41                       If ENC\_INFO\_INCL is included and is set to '1', the mobile  
 42                       station shall include this field; otherwise, the mobile station  
 43                       shall omit this field. If this field is included, the mobile  
 44                       station shall set this field to indicate which signaling  
 45                       encryption algorithms are supported by the mobile station.

1           This field consists of the subfields shown in Table 2.7.1.3.2.1-  
 2           5.

3           If this field is included, the mobile station shall set the  
 4           subfields as follows:

5           The mobile station shall set the CMEA subfield to '1'.

6           The mobile station shall set each other subfield to '1' if the  
 7           corresponding signaling encryption algorithm is supported by  
 8           the mobile station; otherwise, the mobile station shall set the  
 9           subfield to '0'.

10          The mobile station shall set the RESERVED subfield to  
 11          '000000'. |

12          D SIG\_ENCRYPT\_REQ - Dedicated channel sSignaling Message-encryption request  
 13          indicator.

14          If ENC\_INFO\_INCL is included and is set to '1', the mobile  
 15          station shall include this field; otherwise, the mobile station  
 16          shall omit this field. If this field is included, the mobile  
 17          station shall set this field to '1' to request signaling encryption  
 18          to be turned on for signaling messages sent on f-dsch and, r-  
 19          dsch, f eseh, and r eseh, and to '0' to request signaling  
 20          encryption to be turned off for signaling messages sent on f-  
 21          dsch and, r-dsch, f eseh, and r eseh.

22          KEY\_SEQ\_NEW\_INCL - The new encryption key sequencee number included indicator.

23          If ENC\_INFO\_INCL is included and is set to '1', the mobile  
 24          station shall include this field; otherwise, the mobile station  
 25          shall omit this field. If this field is included, the mobile station  
 26          shall set this field as follow:

27          If STORE\_KEYs is equal to '1' and KEY\_SEQ\_NEW is included in  
 28          this message, the mobile station shall set this field to '1';  
 29          otherwise, the mobile station shall set this field to '0'.

30          C SIG ENCRYPT REQ - Common channel signaling encryption request indicator.

31          If ENC INFO INCL is included and is set to '1', the mobile  
 32          station shall include this field; otherwise, the mobile station  
 33          shall omit this field. If this field is included, the mobile  
 34          station shall set this field to '1' to request signaling encryption  
 35          to be turned on for signaling messages sent on f-csch and r-  
 36          csch, and to '0' to request signaling encryption to be turned  
 37          off for signaling messages sent on f-csch and r-csch.

38          KEY\_SEQ\_NEW - The key sequencee number corresponding to the new encryption  
 39          key generated by the mobile station.

40          If KEY\_SEQ\_NEW\_INCL is included and is set to '1', the mobile  
 41          station shall include this field; otherwise, the mobile station shall  
 42          omit this field. If this field is included, the mobile station shall set  
 43          this field to KEY\_SEQ\_NEWS\_p, the sequencee number associated  
 44          with the new encryption key generated by the mobile station.

45          ENC\_SEQ\_H - The 24 MSB of the EXT\_ENC\_SEQ

1           If SIG\_ENCRYPT\_SUP is included and the ECMEA or REA  
2           subfield in SIG\_ENCRYPT\_SUP is set to '1', If ENC\_INFO\_INCL  
3           is included and is equal to '1', and the Enhanced Cellular  
4           Message Encryption Algorithm is supported by the mobile  
5           station, the mobile station shall include this field; otherwise,  
6           the mobile station shall omit this field. If this field is  
7           included, the mobile station shall set this field to the 24 most  
8           significant bits of the EXT\_ENC\_SEQ to be used as the initial  
9           value of crypto sync for both forward and reverse link  
10          encryptions.

- 11          ENC\_SEQ\_H\_SIG    - The signature of ENC\_SEQ\_H  
12                 If the ENC\_SEQ\_H field is included in the message, the mobile  
13                 station shall set this field to the digital signature of the  
14                 ENC\_SEQ\_H as described in 2.3.12.4.5; otherwise, the mobile  
15                 station shall omit this field.
- 16          UI\_ENCRYPT\_REQ    - Request for user information encryption on the traffic channel  
17                 indicator.  
18                 If ENC\_INFO\_INCL is included and is set to '1', the mobile  
19                 station shall include this field; otherwise, the mobile station  
20                 shall omit this field. If this field is included, the mobile  
21                 station shall set this field to '1' to request user information  
22                 encryption, and to '0' to request no user information  
23                 encryption. UI\_ENCRYPT\_SUP- User information  
24                 Encryption supported indicator.  
25                 If ENC\_INFO\_INCL is included and is set to '1', the mobile  
26                 station shall include this field; otherwise, the mobile station  
27                 shall omit this field. If this field is included, the mobile  
28                 station shall set this field to indicate the supported user  
29                 information encryption algorithms.

1           This field consists of the subfields shown in Table 2.7.1.3.2.4-  
 2           9.

3           The mobile station shall set each subfield to '1' if the  
 4           corresponding user information encryption algorithm is  
 5           supported by the mobile station; otherwise, the mobile station  
 6           shall set the subfield to '0'.

7           The mobile station shall set the RESERVED subfield to  
 8           '0000000'. |

9           SYNC\_ID\_INCL - [SCR-Service Configuration](#) synchronization identifier included  
 10          indicator.

11          If P\_REV\_IN\_USE<sub>S</sub> is less than seven, the mobile station shall  
 12          omit this field; otherwise, the mobile station shall include this  
 13          field and set it as follows.

14          The mobile station shall set this field to '1' if the SYNC\_ID  
 15          field is included in this message; [otherwise, the mobile](#)  
 16          [station shall set this field to '0'.](#)

17          [SYNC ID LEN](#) - [Service Configuration synchronization identifier length](#)  
 18          [indicator.](#)

19          [If the SYNC\\_ID\\_INCL field is not included or is included and is](#)  
 20          [set to '0', the mobile station shall omit this field; otherwise the](#)  
 21          [mobile station shall include this field and set it as follows:](#)

22          [The mobile station shall set this field to the length of the](#)  
 23          [SYNC\\_ID field included in this message.](#)

25          SYNC\_ID - [Service Configuration SCR](#)-synchronization identifier.

26          If the SYNC\_ID\_INCL field is not included, or is included and  
 27          is set to '0', the mobile station shall omit this field; otherwise,  
 28          the mobile station shall include this field and set it [as follows:](#)

29          [The mobile station shall set this field to the Service](#)  
 30          [Configuration synchronization identifier corresponding to the](#)  
 31          [stored service configuration.](#)

32          [to the 16 bit CRC computed over the entire stored service](#)  
 33          [configuration \(that is, both the Service Configuration](#)  
 34          [information record and the Non-negotiable Service](#)  
 35          [Configuration information record\) as specified in 2.6.11.](#)

36          SO\_BITMAP\_IND - SO bitmap indicator.

37          If P\_REV\_IN\_USE<sub>S</sub> is less than 7, the mobile station shall omit  
 38          this field; otherwise, the mobile station shall include this field  
 39          and set this field as defined in Table 2.7.1.3.2.4-10.

40          SO\_GROUP\_NUM - The service option group number.

If SO\_BITMAP\_IND is included and not set to '00', the mobile station shall include this field and set this field to service option group number of the bitmap to be included in this message; otherwise, the mobile station shall omit this field.

SO\_BITMAP - Service option bitmap.

If the field SO\_BITMAP\_IND field is included and is not set to '00', the mobile station shall include the bitmap of the service option group (SO\_GROUP\_NUM); otherwise, the mobile station shall omit this field.

When the service option bitmap is included, if there are more than  $(4 \times \text{SO_BITMAP_IND})$  service options defined for the service option group, the mobile station shall include the bitmap containing the least significant bits  $(4 \times \text{SO_BITMAP_IND})$  of the service option group.

The mobile station shall set a bit in this bitmap to '1', if the mobile station is capable of supporting the service option for which the bit represents; otherwise, the mobile station shall set a bit in this bitmap to '0'.

## 1    2.7.1.3.2.6 Authentication Challenge Response Message

2    MSG\_TAG: AUCRM

3

| Field | Length (bits) |
|-------|---------------|
| AUTHU | 18            |

4    AUTHU    –    Authentication challenge response.

5    The mobile station shall set this field as specified in  
6    2.3.12.1.4.

## 1    2.7.1.3.2.7 Status Response Message

2    MSG\_TAG: STRPM

3

| <b>Field</b>         | <b>Length (bits)</b>              |
|----------------------|-----------------------------------|
| QUAL_INFO_TYPE       | 8                                 |
| QUAL_INFO_LEN        | 3                                 |
| Type-specific fields | $8 \times \text{QUAL\_INFO\_LEN}$ |

One or more occurrences of the following record:

|                      |                               |
|----------------------|-------------------------------|
| RECORD_TYPE          | 8                             |
| RECORD_LEN           | 8                             |
| Type-specific fields | $8 \times \text{RECORD\_LEN}$ |

4    QUAL\_INFO\_TYPE    -    Qualification information type.

5                         The mobile station shall set this field to the QUAL\_INFO\_TYPE  
6                         field in the corresponding *Status Request Message*.

7    QUAL\_INFO\_LEN    -    Qualification information length.

8                         The mobile station shall set this field to the QUAL\_INFO\_LEN  
9                         field in the corresponding *Status Request Message*.

10   Type-specific fields    -    Type-specific fields.

11                         The mobile station shall set these fields to the qualification  
12                         information in the corresponding *Status Request Message*.13   The mobile station shall include all the records requested in the corresponding *Status  
14   Request Message*. The mobile station shall include one occurrence of the following fields for  
15   each information record to be included:

16   RECORD\_TYPE    -    Information record type.

17                         The mobile station shall set this field to the record type value  
18                         shown in Table 3.7.2.3.2.15-2 corresponding to the type of  
19                         this information record.

20   RECORD\_LEN    -    Information record length.

21                         The mobile station shall set this field to the number of octets  
22                         included in the type-specific fields of this information record.

23   Type-specific fields    -    Type-specific fields.

24                         The mobile station shall set these fields to the information as  
25                         specified in 2.7.4 for the specific type of records. The mobile  
26                         station shall only specify the information corresponding to the  
27                         included qualification information.

- 1    2.7.1.3.2.8 TMSI Assignment Completion Message
- 2    MSG\_TAG: TACM
- 3    There are no Layer 3 fields associated with this message.

- 1    2.7.1.3.2.9 PACA Cancel Message
- 2    MSG\_TAG: PACNM
- 3    There are no Layer 3 fields associated with this message.

## 1    2.7.1.3.2.10 Extended Status Response Message

2    MSG\_TAG: ESTRPM

3

| <b>Field</b>         | <b>Length (bits)</b>              |
|----------------------|-----------------------------------|
| QUAL_INFO_TYPE       | 8                                 |
| QUAL_INFO_LEN        | 3                                 |
| Type-specific fields | $8 \times \text{QUAL\_INFO\_LEN}$ |
| NUM_INFO_RECORDS     | 4                                 |

NUM\_INFO\_RECORDS occurrences of the following record:

|                      |                               |
|----------------------|-------------------------------|
| RECORD_TYPE          | 8                             |
| RECORD_LEN           | 8                             |
| Type-specific fields | $8 \times \text{RECORD\_LEN}$ |

4

- 5    QUAL\_INFO\_TYPE    – Qualification information type.  
 6                         The mobile station shall set this field to the QUAL\_INFO\_TYPE  
 7                         field in the corresponding *Status Request Message*.
- 8    QUAL\_INFO\_LEN    – Qualification information length.  
 9                         The mobile station shall set this field to the QUAL\_INFO\_LEN  
 10                        field in the corresponding *Status Request Message*.
- 11   Type-specific fields    – Type-specific fields.  
 12                         The mobile station shall set these fields to the qualification  
 13                         information in the corresponding *Status Request Message*.
- 14   NUM\_INFO\_RECORDS    – Number of information records included.  
 15                         The mobile station shall set this field to the number of  
 16                         information records which are included. The mobile station  
 17                         shall include all the records requested in the corresponding  
 18                         *Status Request Message*.

19   The mobile station shall include one occurrence of the following fields for each information  
 20   record which is included:

- 21       RECORD\_TYPE    – Information record type.  
 22                         The mobile station shall set this field to the record type value  
 23                         shown in Table 3.7.2.3.2.15-2 corresponding to the type of  
 24                         this information record.
- 25       RECORD\_LEN    – Information record length.  
 26                         The mobile station shall set this field to the number of octets  
 27                         included in the type-specific fields of this information record.

- 1      Type-specific fields – Type-specific fields.  
2  
3  
4  
5      The mobile station shall set these fields to the information as  
          specified in 2.7.4 for the specific type of records. The mobile  
          station shall only specify the information corresponding to the  
          included qualification information.

## 1    2.7.1.3.2.11 Device Information Message

2    MSG\_TAG: DIM

3

| <b>Field</b>     | <b>Length (bits)</b> |
|------------------|----------------------|
| WLL_DEVICE_TYPE  | 3                    |
| NUM_INFO_RECORDS | 5                    |

NUM\_INFO\_RECORDS occurrences of the following record:

|                      |                               |
|----------------------|-------------------------------|
| RECORD_TYPE          | 8                             |
| RECORD_LEN           | 8                             |
| Type-specific fields | $8 \times \text{RECORD\_LEN}$ |

4

- 5    WLL\_DEVICE\_TYPE    –    WLL device type indicator.  
 6                         The mobile station shall set this field to the  
 7                         WLL\_DEVICE\_TYPE value shown in Table 2.7.1.3.2.1-3  
 8                         corresponding to the mobile station device type.
- 9    NUM\_INFO\_RECORDS    –    Number of information records included.  
 10                        The mobile station shall set this field to the number of  
 11                        information records which are included.

12    The mobile station shall include one occurrence of the following fields for each information  
 13    record which is included:

- 14                        RECORD\_TYPE    –    Information record type.  
 15                         The mobile station shall set this field to the record type code  
 16                         shown in Table 2.7.4-1 corresponding to the type of this  
 17                         information record.
- 18                        RECORD\_LEN    –    Information record length.  
 19                         The mobile station shall set this field to the number of octets  
 20                         in the type-specific fields of this record.
- 21                        Type-specific fields    –    Type-specific fields.  
 22                         The mobile station shall set these fields as specified in 2.7.4  
 23                         for this type of information record.

## 1    2.7.1.3.2.12 Security Mode Request Message

2    MSG\_TAG: SMRM

3

| Order-Specific Field     | Length (bits)  |
|--------------------------|----------------|
| UI_ENC_INCL              | 1              |
| UI_ENCRYPT_SUP           | 0 or 8         |
| SIG_ENC_INCL             | 1              |
| SIG_ENCRYPT_SUP          | 0 or 8         |
| <u>C_SIG_ENCRYPT_REQ</u> | 0 or 1         |
| <u>ENC_SEQ_H_INCL</u>    | <u>1</u>       |
| <u>ENC_SEQ_H</u>         | <u>0 or 24</u> |
| <u>ENC_SEQ_H_SIG</u>     | <u>0 or 8</u>  |

4

- 5    UI\_ENC\_INCL    -    User information encryption fields included.  
 6                  The mobile station shall set this field to '1' if the user  
 7                  information encryption related fields are included in this  
 8                  message; otherwise, the mobile station shall set this field to  
 9                  '0'.  
 10   |    UI\_ENCRYPT\_SUP    -    User information eEncryption supported indicator.  
 11                 If UI\_ENC\_INCL is equal to '1', the mobile station shall include  
 12                 this field; otherwise, the mobile station shall omit this field. If  
 13                 this field is included, the mobile station shall set this field to  
 14                 indicate the supported user information encryption  
 15                 algorithms.  
 16                 This field consists of the subfields shown in Table 2.7.1.3.2.4-  
 17                 9.  
 18                 The mobile station shall set each subfield to '1' if the  
 19                 corresponding user information encryption algorithm is  
 20                 supported by the mobile station; otherwise, the mobile station  
 21                 shall set the subfield to '0'.  
 22   |    SIG\_ENC\_INCL    -    Signaling encryption fields included.  
 23                 The mobile station shall set the RESERVED subfield to  
 24                 '0000000'.  
 25                 The mobile station shall set this field to '1' if the following two  
 26                 fields related to signaling encryption fields are included in this  
 27                 message; otherwise, the mobile station shall set this field to  
 28                 '0'.

|    |                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|----|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | SIG_ENCRYPT_SUP       | - Signaling <u>e</u> ncryption supported indicator.                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 1  |                       | If SIG_ENC_INCL is equal to '1', the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile shall set this field to indicate the supported signaling encryption algorithms supported by the mobile station.                                                                                                                                                                                                   |
| 2  |                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 3  |                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 4  |                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 5  |                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 6  |                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 7  |                       | This field consists of the subfields shown in Table 2.7.1.3.2.1-5.                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 8  |                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 9  |                       | If this field is included, the mobile station shall set the subfields as follows:                                                                                                                                                                                                                                                                                                                                                                                                          |
| 10 |                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 11 |                       | The mobile station shall set the CMEA subfield to '1'.                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 12 |                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 13 |                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 14 |                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 15 |                       | The mobile station shall set each other subfield to '1' if the corresponding signaling <u>encryption</u> algorithm is supported by the mobile station; otherwise, the mobile station shall set the subfield to '0'.                                                                                                                                                                                                                                                                        |
| 16 |                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 17 |                       | The mobile station shall set the RESERVED subfield to '00000 <u>0</u> '.                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 18 | C SIG_ENCRYPT_REQ     | - <u>Common channel s</u> ignaling <u>M</u> essage—encryption request indicator.                                                                                                                                                                                                                                                                                                                                                                                                           |
| 19 |                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 20 |                       | If SIG_ENC_INCL is equal to '1', the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile station shall set this field to '1' to request signaling encryption to be turned on for signaling messages sent on <u>f</u> dseh, <u>r</u> dseh, f-csch, and r-csch, and to '0' to request signaling encryption to be turned off for signaling messages sent on <u>f</u> dseh, <u>r</u> dseh, f-csch, and r-csch. |
| 21 |                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 22 |                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 23 |                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 24 |                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 25 |                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 26 |                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 27 | <u>ENC SEQ H INCL</u> | - <u>The 24 MSB of the EXT ENC SEQ included.</u>                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 28 |                       | <u>The mobile station shall set this field to '1' if ENC SEQ H is included in this message; otherwise, the mobile station shall set this field to '0'.</u>                                                                                                                                                                                                                                                                                                                                 |
| 29 |                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 30 |                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 31 | <u>ENC SEQ H</u>      | - <u>The 24 MSB of the EXT ENC SEQ</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 32 |                       | <u>If ENC SEQ H INCL is set to '1', the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile station shall set this field to the 24 most significant bits of the EXT ENC SEQ to be used as the initial value of crypto sync for both forward and reverse link encryptions.</u>                                                                                                                              |
| 33 |                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 34 |                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 35 |                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 36 |                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 37 |                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 38 | <u>ENC SEQ H SIG</u>  | - <u>The signature of ENC SEQ H</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 39 |                       | <u>If ENC SEQ H is included, the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile station shall set this field to the digital signature of the ENC SEQ H computed as described in 2.3.12.4.5.</u>                                                                                                                                                                                                       |
| 40 |                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 41 |                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 42 |                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 43 |                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

- 1    2.7.2 r-dsch
- 2    During Traffic Channel operation, the mobile station sends signaling messages to the base
- 3    station using the r-dsch.
- 4    2.7.2.1 Reserved
- 5    2.7.2.2 Reserved
- 6    2.7.2.3 PDU Formats for Messages on r-dsch
- 7    The messages sent on the r-dsch are summarized in Table 2.7.2.3-1.

1

**Table 2.7.2.3-1. Messages on r-dsch**

| <b>Message Name</b>                                | <b>MSG_TAG</b> | <b>Section Number</b> |
|----------------------------------------------------|----------------|-----------------------|
| <i>Order Message</i>                               | ORDM           | 2.7.2.3.2.1           |
| <i>Authentication Challenge Response Message</i>   | AUCRM          | 2.7.2.3.2.2           |
| <i>Flash With Information Message</i>              | FWIM           | 2.7.2.3.2.3           |
| <i>Data Burst Message</i>                          | DBM            | 2.7.2.3.2.4           |
| <i>Pilot Strength Measurement Message</i>          | PSMM           | 2.7.2.3.2.5           |
| <i>Power Measurement Report Message</i>            | PMRM           | 2.7.2.3.2.6           |
| <i>Send Burst DTMF Message</i>                     | BDTMFM         | 2.7.2.3.2.7           |
| <i>Status Message</i>                              | STM            | 2.7.2.3.2.8           |
| <i>Origination Continuation Message</i>            | ORCM           | 2.7.2.3.2.9           |
| <i>Handoff Completion Message</i>                  | HOCM           | 2.7.2.3.2.10          |
| <i>Parameters Response Message</i>                 | PRSM           | 2.7.2.3.2.11          |
| <i>Service Request Message</i>                     | SRQM           | 2.7.2.3.2.12          |
| <i>Service Response Message</i>                    | SRPM           | 2.7.2.3.2.13          |
| <i>Service Connect Completion Message</i>          | SCCM           | 2.7.2.3.2.14          |
| <i>Service Option Control Message</i>              | SOCM           | 2.7.2.3.2.15          |
| <i>Status Response Message</i>                     | STRPM          | 2.7.2.3.2.16          |
| <i>TMSI Assignment Completion Message</i>          | TACM           | 2.7.2.3.2.17          |
| <i>Supplemental Channel Request Message</i>        | SCRM           | 2.7.2.3.2.18          |
| <i>Candidate Frequency Search Response Message</i> | CFSRSM         | 2.7.2.3.2.19          |
| <i>Candidate Frequency Search Report Message</i>   | CFSRPM         | 2.7.2.3.2.20          |
| <i>Periodic Pilot Strength Measurement Message</i> | PPSMM          | 2.7.2.3.2.21          |
| <i>Outer Loop Report Message</i>                   | OLRM           | 2.7.2.3.2.22          |
| <i>Resource Request Message</i>                    | RRM            | 2.7.2.3.2.23          |
| <i>Resource Request Mini Message</i>               | RRMM           | 2.7.2.3.2.24          |
| <i>Extended Release Response Message</i>           | ERRM           | 2.7.2.3.2.25          |
| <i>Extended Release Response Mini Message</i>      | ERRMM          | 2.7.2.3.2.26          |
| <i>Pilot Strength Measurement Mini Message</i>     | PSMMM          | 2.7.2.3.2.27          |
| <i>Supplemental Channel Request Mini Message</i>   | SCRMM          | 2.7.2.3.2.28          |
| <i>Resource Release Request Message</i>            | RRRM           | 2.7.2.3.2.29          |
| <i>Resource Release Request Mini Message</i>       | RRRMM          | 2.7.2.3.2.30          |
| <i>User Zone Update Request Message</i>            | UZURM          | 2.7.2.3.2.31          |

|                                                    |                         |                              |
|----------------------------------------------------|-------------------------|------------------------------|
| <i>Enhanced Origination Message</i>                | EOM                     | 2.7.2.3.2.32                 |
| <i>Extended Flash With Information Message</i>     | EFWIM                   | 2.7.2.3.2.33                 |
| <i>Extended Pilot Strength Measurement Message</i> | EPSMM                   | 2.7.2.3.2.34                 |
| <i>Extended Handoff Completion Message</i>         | EHOCM                   | 2.7.2.3.2.35                 |
| <i>Security Mode Request Message</i>               | SMRM                    | 2.7.2.3.2.36                 |
| <i>Call Cancel Message</i>                         | CLCM                    | 2.7.2.3.2.37                 |
| <i>Device Information Message</i>                  | DIM                     | 2.7. <u>4</u> 2.3.2.38       |
| <i>Base Station Status Request Message</i>         | <a href="#">BSSREQM</a> | <a href="#">2.7.2.3.2.39</a> |

1      2.7.2.3.1 Reserved

2      2.7.2.3.2 Message Body Contents

## 1    2.7.2.3.2.1 Order Message

2    MSG\_TAG: ORDM

3

| <b>Field</b>                    | <b>Length (bits)</b>               |
|---------------------------------|------------------------------------|
| ORDER                           | 6                                  |
| ADD_RECORD_LEN                  | 3                                  |
| Order-specific fields (if used) | $8 \times \text{ADD\_RECORD\_LEN}$ |
| CON_REF_INCL                    | 0 or 1                             |
| CON_REF                         | 0 or 8                             |

4

5    ORDER    -    Order code.

6                 The mobile station shall set this field to the ORDER code.  
7                 See 2.7.3.

8    ADD\_RECORD\_LEN    -    Additional record length.

9                 The mobile station shall set this field to the number of octets  
10                in the order-specific fields included in this message.

11    Order-specific fields    -    Order-specific fields.

12                 The mobile station shall include order-specific fields as  
13                specified in 2.7.3.

14    CON\_REF\_INCL    -    Connection reference included indicator.

15                 If the order carried by this message is not a Call Control order  
16                (2.6.10), the mobile station shall omit this field; otherwise, the  
17                mobile station shall include this field and set it as follows:18                 The mobile station shall set this field to '1' if the connection  
19                reference field is included in this message; otherwise, it shall  
20                set this field to '0'.

21    CON\_REF    -    Connection reference.

22                 If the CON\_REF\_INCL field is not included, or is included but  
23                is set to '0', the mobile station shall omit this field; otherwise,  
24                the mobile station shall include this field and shall set it to  
25                the value of the connection reference assigned to the service  
26                option connection of the call, to which this message  
27                corresponds.

## 1    2.7.2.3.2.2 Authentication Challenge Response Message

2    MSG\_TAG: AUCRM

3

| Field | Length (bits) |
|-------|---------------|
| AUTHU | 18            |

4

5            AUTHU    -    Authentication challenge response.

6                         The mobile station shall set this field as specified in  
7                         2.3.12.1.4.

## 1    2.7.2.3.2.3 Flash With Information Message

2    MSG\_TAG: FWIM

3

| Field                                             | Length (bits)                 |
|---------------------------------------------------|-------------------------------|
| Zero or more occurrences of the following record: |                               |
| RECORD_TYPE                                       | 8                             |
| RECORD_LEN                                        | 8                             |
| Type-specific fields                              | $8 \times \text{RECORD\_LEN}$ |

4

5    The mobile station shall include one occurrence of the following record for each information  
6    record to be included:

- 7            RECORD\_TYPE    -    Information record type.  
                The mobile station shall set this field to the record type code  
                shown in Table 2.7.4-1 corresponding to the type of this  
                information record.
- 8            RECORD\_LEN    -    Information record length.  
                The mobile station shall set this field to the number of octets  
                in the type-specific fields of this record.
- 9            Type-specific fields    -    Type-specific fields.  
                The mobile station shall set these fields as specified in 2.7.4  
                for this type of information record.

## 1    2.7.2.3.2.4 Data Burst Message

2    MSG\_TAG: DBM

3

| <b>Field</b> | <b>Length (bits)</b> |
|--------------|----------------------|
| MSG_NUMBER   | 8                    |
| BURST_TYPE   | 6                    |
| NUM_MSGS     | 8                    |
| NUM_FIELDS   | 8                    |

NUM\_FIELDS occurrences of the following field:

|       |   |
|-------|---|
| CHARi | 8 |
|-------|---|

4

- 5    MSG\_NUMBER    – Message number within the data burst stream.  
 6                  The mobile station shall set this field to the number of this  
 7                  message within the data burst stream.
- 8    BURST\_TYPE    – Data burst type.  
 9                  The mobile station shall set the value of this field for the type  
 10                 of this data burst as defined in [30]. If the mobile station sets  
 11                 this field equal to '111110', it shall set the first two CHARi  
 12                 fields of this message equal to EXTENDED\_BURST\_TYPE\_INTERNATIONAL as described in  
 13                 the definition of CHARi below. If the mobile station sets this  
 14                 field equal to '111111', it shall set the first two CHARi fields of  
 15                 this message equal to the EXTENDED BURST TYPE as  
 16                 described in the definition of CHARi below.
- 17                  NUM\_MSGS    – Number of messages in the data burst stream.  
 18                  The mobile station shall set this field to the number of  
 19                 messages within this data burst stream.
- 20                  NUM\_FIELDS    – Number of characters in this message.  
 21                  The mobile station shall set this field to the number of CHARi  
 22                 fields included in this message.
- 23                  CHARi    – Character.  
 24                  The mobile station shall include NUM\_FIELDS occurrences of  
 25                 this field. The mobile station shall set these fields to the  
 26                 corresponding octet of the data burst stream.
- 27

If the BURST\_TYPE field of this message is equal to '111110', the first two CHARi octets shall represent a 16 bit EXTENDED\_BURST\_TYPE\_INTERNATIONAL field, which is encoded as shown below. The first ten bits of this field contain a binary mapping of the Mobile Country Code (MCC) associated with the national standards organization administering the use of the remaining octets of the message. Encoding of the MCC shall be as specified in 2.3.1.3. The remaining six bits of the EXTENDED\_BURST\_TYPE\_INTERNATIONAL field shall specify the COUNTRY\_BURST\_TYPE. The mobile station shall set the value of the COUNTRY\_BURST\_TYPE according to the type of this data burst as defined in standards governed by the country where this data burst type is to be used.

| <b>Field</b>           | <b>Length (bits)</b>               |
|------------------------|------------------------------------|
| Mobile Country Code    | 10                                 |
| COUNTRY_BURST_TYPE     | 6                                  |
| Remaining CHARi fields | $8 \times (\text{NUM_FIELDS} - 2)$ |

If the BURST\_TYPE field of this message is equal to '111111', the first two CHARi octets shall represent a single, 16 bit, EXTENDED\_BURST\_TYPE field, as shown below. The mobile station shall set the value of the EXTENDED\_BURST\_TYPE according to the type of this data burst as defined in [30].

| <b>Field</b>                                    | <b>Length (bits)</b>               |
|-------------------------------------------------|------------------------------------|
| EXTENDED_BURST_TYPE<br>(first two CHARi fields) | 16                                 |
| Remaining CHARi fields                          | $8 \times (\text{NUM_FIELDS} - 2)$ |

## 1    2.7.2.3.2.5 Pilot Strength Measurement Message

2    MSG\_TAG: PSMM

3

| Field          | Length (bits) |
|----------------|---------------|
| REF_PN         | 9             |
| PILOT_STRENGTH | 6             |
| KEEP           | 1             |

Zero or more occurrences of the following record:

|                |    |
|----------------|----|
| PILOT_PN_PHASE | 15 |
| PILOT_STRENGTH | 6  |
| KEEP           | 1  |

4

5    REF\_PN    - Time reference PN sequence offset.

6                 The mobile station shall set this field to the PN sequence offset  
7                 of the pilot used by the mobile station to derive its time  
8                 reference, relative to the zero offset pilot PN sequence in units  
9                 of 64 PN chips.

10    PILOT\_STRENGTH    - Pilot strength.

11                 The mobile station shall set this field to

12                  $\lfloor -2 \times 10 \log_{10} PS \rfloor$ ,

13                 where PS is the strength of the pilot used by the mobile  
14                 station to derive its time reference (see [2]), measured as  
15                 specified in 2.6.6.2.2. If this value ( $\lfloor -2 \times 10 \log_{10} PS \rfloor$ ) is less  
16                 than 0, the mobile station shall set this field to '000000'. If  
17                 this value is greater than '111111', the mobile station shall set  
18                 this field to '111111'.

19    KEEP    - Keep pilot indicator.

20                 If the handoff drop timer (see 2.6.6.2.3) corresponding to the  
21                 pilot used by the mobile station to derive its time reference  
22                 (see 2.1.5 of [2]) has expired, the mobile station shall set this  
23                 field to '0'; otherwise, the mobile station shall set this field to  
24                 '1'.

25

26    If P\_REV\_IN\_USE<sub>s</sub> is less than or equal to three, the mobile station shall include one  
27                 occurrence of the three-field record given below for each pilot in the Active Set and for each  
28                 Candidate Set pilot reported (the number of Candidate Set pilots reported shall not exceed  
29                 5), other than the pilot identified by the REF\_PN field. If P\_REV\_IN\_USE<sub>s</sub> is greater than  
30                 three and SOFT\_SLOPE<sub>s</sub> is equal to '000000', the mobile station shall include one  
31                 occurrence of the three-field record given below for each pilot in the Active Set and for each

1 pilot in the Candidate Set, other than the pilot identified by the REF\_PN field. If  
 2 P\_REV\_IN\_USE<sub>S</sub> is greater than three and SOFT\_SLOPE<sub>S</sub> is not equal to '000000', the  
 3 mobile station shall include one occurrence of the three-field record given below for each  
 4 pilot in the Active Set, for each pilot in the Candidate Set whose strength exceeds T\_ADD,  
 5 and shall also include one occurrence of the three-field record given below for each pilot in  
 6 the Candidate Set whose strength satisfies the following inequality:

$$7 \quad 10 \times \log_{10} PS > \frac{\text{SOFT\_SLOPE}_S}{8} \times 10 \times \log_{10} \sum_{i \in A} PS_i + \frac{\text{ADD\_INTERCEPT}_S}{2}$$

8 where the summation is performed over all pilots currently in the Active Set. The mobile  
 9 station shall not include these fields for the pilot identified by the REF\_PN field.

10 The mobile station shall order any occurrences of the three-field record given below which  
 11 correspond to pilots in the Active Set such that they occur before any occurrences of the  
 12 three-field record given below which correspond to pilots in the Candidate Set.

13 PILOT\_PN\_PHASE - Pilot measured phase.

14 The mobile station shall set this field to the phase of the pilot  
 15 PN sequence relative to the zero offset pilot PN sequence of  
 16 this pilot, in units of one PN chip, as specified in 2.6.6.2.4.

17 PILOT\_STRENGTH - Pilot strength.

18 The mobile station shall set this field to

$$19 \quad \lfloor -2 \times 10 \log_{10} PS \rfloor,$$

20 where PS is the strength of this pilot, measured as specified in  
 21 2.6.6.2.2. If this value ( $\lfloor -2 \times 10 \log_{10} PS \rfloor$ ) is less than 0, the  
 22 mobile station shall set this field to '000000'. If this value is  
 23 greater than '111111', the mobile station shall set this field to  
 24 '111111'.

25 KEEP - Keep pilot indicator.

26 If the handoff drop timer (see 2.6.6.2.3) corresponding to this  
 27 pilot has expired, the mobile station shall set this field to '0';  
 28 otherwise, the mobile station shall set this field to '1'.

## 1    2.7.2.3.2.6 Power Measurement Report Message

2    MSG\_TAG: PMRM

3

| <b>Field</b>    | <b>Length (bits)</b> |
|-----------------|----------------------|
| ERRORS_DETECTED | 5                    |
| PWR_MEAS_FRAMES | 10                   |
| LAST_HDM_SEQ    | 2                    |
| NUM_PILOTS      | 4                    |

NUM\_PILOTS occurrences of the following field:

|                |   |
|----------------|---|
| PILOT_STRENGTH | 6 |
|----------------|---|

|                      |         |
|----------------------|---------|
| DCCH_PWR_MEAS_INCL   | 1       |
| DCCH_PWR_MEAS_FRAMES | 0 or 10 |
| DCCH_ERRORS_DETECTED | 0 or 5  |
| SCH_PWR_MEAS_INCL    | 1       |
| SCH_ID               | 0 or 1  |
| SCH_PWR_MEAS_FRAMES  | 0 or 16 |
| SCH_ERRORS_DETECTED  | 0 or 10 |

4

5    ERRORS\_DETECTED    -    Number of detected bad frames.

6    When the Forward Fundamental Channel is assigned, the  
7    mobile station shall set this field to the number of bad frames  
8    detected (BAD\_FRAMES<sub>S</sub>, see 2.6.4.1.1] on the Forward  
9    Fundamental Channel.10    If P\_REV\_IN\_USE<sub>S</sub> is greater than or equal to six and only the  
11    Forward Dedicated Control Channel is assigned, the mobile  
12    station shall set this field to the number of bad frames  
13    detected on the Forward Dedicated Control Channel  
14    (DCCH\_BAD\_FRAMES<sub>S</sub>, see 2.6.4.1.1].15    If the number of bad frames received on this channel within  
16    the measurement period is less than or equal to 31, the  
17    mobile station shall set this field to that number. If that  
18    number exceeds 31, the mobile station shall set this field to  
19    '11111'.

- 1 PWR\_MEAS\_FRAMES - Number of power measurement frames.
- 2 When the Forward Fundamental Channel is assigned, the  
3 mobile station shall set this field to the number of frames  
4 received on the Forward Fundamental Channel within the  
5 measurement period ( $TOT\_FRAMES_S$ , see 2.6.4.1.1).
- 6 If  $P\_REV\_IN\_USE$  is greater than or equal to six and only the  
7 Dedicated Control Channel is assigned, the mobile station  
8 shall set this field to the number of frames received on the  
9 Dedicated Control Channel ( $DCCH\_TOT\_FRAMES_S$ , see  
10 2.6.4.1.1).
- 11 LAST\_HDM\_SEQ - *Extended Handoff Direction Message* or a *General Handoff*  
12 *Direction Message*, or *Universal Handoff Direction Message*  
13 sequence number.
- 14 If an *Extended Handoff Direction Message*, a *General Handoff*  
15 *Direction Message*, or *Universal Handoff Direction Message* has  
16 been received during this call, the mobile station shall set this  
17 field to the value of the HDM\_SEQ field from the *Extended*  
18 *Handoff Direction Message*, the *General Handoff Direction*  
19 *Message* or the *Universal Handoff Direction Message* that  
20 determined the current Active Set. If no *Extended Handoff*  
21 *Direction Message*, *General Handoff Direction Message*, or  
22 *Universal Handoff Direction Message* has been received during  
23 this call, the mobile station shall set this field to '11'.
- 24 NUM\_PILOTS - Number of pilots reported.  
25 The mobile station shall set this field to the number of pilots  
26 in the current Active Set.
- 27 PILOT\_STRENGTH - Pilot strength.  
28 The mobile station shall include one occurrence of this field  
29 for each pilot in the Active Set. If the Active Set contains more  
30 than one pilot, the mobile station shall include the pilot  
31 strengths in the same order as in the *Extended Channel*  
32 *Assignment Message*, *Extended Handoff Direction Message*,  
33 *General Handoff Direction Message* or the *Universal Handoff*  
34 *Direction Message* that determined the current Active Set.  
35 The mobile station shall set each occurrence of this field to  
36  $\lfloor -2 \times 10 \log_{10} PS \rfloor$ ,
- 37 where PS is the strength of the pilot, measured as specified in  
38 2.6.6.2.2. If this value ( $\lfloor -2 \times 10 \log_{10} PS \rfloor$ ) is less than 0, the  
39 mobile station shall set this field to '000000'. If this value is  
40 greater than '111111', the mobile station shall set this field to  
41 '111111'.
- 42 DCCH\_PWR\_MEAS\_INCL - Forward Dedicated Control Channel power measurement  
43 included.

If both Forward Fundamental Channel and Forward Dedicated Control Channel are assigned, the mobile station shall set this field equal to '1'; otherwise, the mobile shall set this field to '0'.

## DCCH\_PWR-

- Number of received Dedicated Control Channel frames.  
If DCCH\_PWR\_MEAS\_INCL is set to '0', the mobile station shall omit this field; otherwise, the mobile station shall set this field to the number of frames received on the Dedicated Control Channel within the measurement period (DCCH\_TOT\_FRAMESS, see 2.6.4.1.1).

## DCCH\_ERRORS-

- Number of detected bad Dedicated Control Channel frames.
    - If DCCH\_PWR\_MEAS\_INCL is set to '0', the mobile station shall omit this field; otherwise, the mobile station shall set this field to the number of bad frames (DCCH\_BAD\_FRAMES<sub>S</sub>) detected on the Forward Dedicated Control Channel.
    - If DCCH\_BAD\_FRAMES<sub>S</sub> exceeds 31, the mobile station shall set this field to '11111'; otherwise, the mobile station shall set this field to DCCH\_BAD\_FRAMES<sub>S</sub> [see 2.6.4.1.1].

## SCH\_PWR\_MEAS\_INCL

- Supplemental Channel power measurement included indicator.  
If FOR\_SCH\_FER\_REPs is set to '1' and this message is to report the frame counts at the end of the burst on an assigned Supplemental Channel, the mobile station shall set this field to '1'; otherwise, the mobile station shall set this field to

SCH ID

- Forward Supplemental Channel identifier.  
If the SCH\_PWR\_MEAS\_INCL is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile shall set this field to the Identifier of the Forward Supplemental Channel of which the frame counts are being reported in this message.

SCH\_PWR-

- Number of received Supplemental Channel frames.  
If SCH\_PWR\_MEAS\_INCL is set to '0', the mobile station shall omit this field; otherwise, the mobile station shall set this field to the total number of frames [SCH\_TOT\_FRAMES<sub>s</sub>] received during the burst duration on the Supplemental Channel specified by SCH\_ID. If this measurement is greater than or equal to  $2^{16} - 1$ , the mobile station shall set this field to '1111111111111111'.

## SCH ERRORS-

- Number of detected bad Supplemental Channel frames

1           If SCH\_PWR\_MEAS\_INCL is set to '0', the mobile station shall  
2           omit this field; otherwise, the mobile station shall set this field  
3           to the number of bad frame detected on the Forward  
4           Supplemental Channel of the SCH\_ID for the duration of the  
5           forward burst on this channel.

6           If the number of bad frames (SCH\_BAD\_FRAME<sub>S</sub>) detected  
7           on the SCH\_ID Supplemental Channel during the burst is  
8           greater than 1023, the mobile station shall set this field to  
9           '1111111111'.

1      2.7.2.3.2.7 Send Burst DTMF Message

2      MSG\_TAG: BDTMFM

3

| <b>Field</b>    | <b>Length (bits)</b> |
|-----------------|----------------------|
| NUM_DIGITS      | 8                    |
| DTMF_ON_LENGTH  | 3                    |
| DTMF_OFF_LENGTH | 3                    |

NUM\_DIGITS occurrences of the following field:

|                    |   |
|--------------------|---|
| DIGIT <sub>i</sub> | 4 |
|--------------------|---|

|              |        |
|--------------|--------|
| CON_REF_INCL | 1      |
| CON_REF      | 0 or 8 |

4

- 5      NUM\_DIGITS    - Number of DTMF digits.  
 6                  The mobile station shall set this field to the number of DTMF  
 7                  digits included in this message.
- 8      DTMF\_ON\_LENGTH    - DTMF pulse width code.  
 9                  The mobile station shall set this field to the DTMF\_ON\_LENGTH  
 10                 value shown in Table 2.7.2.3.2.7-1 corresponding to the  
 11                 requested width of DTMF pulses to be generated by the base  
 12                 station.

13

**Table 2.7.2.3.2.7-1. Recommended DTMF Pulse Width**

| <b>DTMF_ON_LENGTH<br/>Field (binary)</b>     | <b>Recommended Pulse Width</b> |
|----------------------------------------------|--------------------------------|
| 000                                          | 95 ms                          |
| 001                                          | 150 ms                         |
| 010                                          | 200 ms                         |
| 011                                          | 250 ms                         |
| 100                                          | 300 ms                         |
| 101                                          | 350 ms                         |
| All other DTMF_ON_LENGTH codes are reserved. |                                |

14

- 1      DTMF\_OFF\_LENGTH    -    DTMF inter-digit interval code.  
 2      The mobile station shall set this field to the  
 3      DTMF\_OFF\_LENGTH value shown in Table 2.7.2.3.2.7-2  
 4      corresponding to the requested minimum interval between  
 5      DTMF pulses to be generated by the base station.

6

7      **Table 2.7.2.3.2.7-2. Recommended Minimum Inter-digit**  
 8      **Interval**

| DTMF_OFF_LENGTH<br>Field (binary)             | Recommended Minimum<br>Inter-digit Interval |
|-----------------------------------------------|---------------------------------------------|
| 000                                           | 60 ms                                       |
| 001                                           | 100 ms                                      |
| 010                                           | 150 ms                                      |
| 011                                           | 200 ms                                      |
| All other DTMF_OFF_LENGTH codes are reserved. |                                             |

- 9
- 10     DIGIT<sub>i</sub>    -    DTMF digit.  
 11    The mobile station shall include one occurrence of this field  
 12    for each DTMF digit to be generated by the base station. The  
 13    mobile station shall set each occurrence of this field to the  
 14    code value shown in Table 2.7.1.3.2.4-4 corresponding to the  
 15    dialed digit.
- 16     CON\_REF\_INCL    -    Connection reference included indicator.  
 17    The mobile station shall set this field to '1' if the connection  
 18    reference field is included in this message; otherwise, it shall  
 19    set this field to '0'.
- 20     CON\_REF    -    Connection reference.  
 21    If the CON\_REF\_INCL field is set to '0', the mobile station  
 22    shall omit this field; otherwise, the mobile station shall  
 23    include this field and shall set it to the value of the connection  
 24    reference assigned to the service option connection of the call,  
 25    to which this message corresponds.

## 1    2.7.2.3.2.8 Status Message

2    MSG\_TAG: STM

3

| <b>Field</b>         | <b>Length (bits)</b>          |
|----------------------|-------------------------------|
| RECORD_TYPE          | 8                             |
| RECORD_LEN           | 8                             |
| Type-specific fields | $8 \times \text{RECORD\_LEN}$ |

4

5    RECORD\_TYPE    – Information record type.

6                    The mobile station shall set this field to the record type value  
7                    shown in Table 2.7.4-1 corresponding to the type of this  
8                    information record.

9    RECORD\_LEN    – Information record length.

10                  The mobile station shall set this field to the number of octets  
11                  included in the type-specific fields of this information record.

12   Type-specific fields    – Type-specific fields.

13                  The mobile station shall set these fields as specified in 2.7.4  
14                  for this type of record.

## 1    2.7.2.3.2.9 Origination Continuation Message

2    MSG\_TAG: ORCM

3

| <b>Field</b> | <b>Length (bits)</b> |
|--------------|----------------------|
| DIGIT_MODE   | 1                    |
| NUM_FIELDS   | 8                    |

NUM\_FIELDS occurrences of the following field:

|       |        |
|-------|--------|
| CHARi | 4 or 8 |
|-------|--------|

Zero or more occurrences of the following record:

|                      |                               |
|----------------------|-------------------------------|
| RECORD_TYPE          | 8                             |
| RECORD_LEN           | 8                             |
| Type-specific fields | $8 \times \text{RECORD\_LEN}$ |

4

- 5    DIGIT\_MODE    -    Digit mode indicator.  
 6         The mobile station shall set this field to the DIGIT\_MODE  
 7         value from the *Origination Message* for which this message is  
 8         a continuation.
- 9    NUM\_FIELDS    -    Number of dialed digits in this message.  
 10      The mobile station shall set this field to the number of dialed  
 11      digits included in this message.
- 12    CHARi    -    A dialed digit or character.  
 13      The mobile station shall include NUM\_FIELDS occurrences of  
 14      this field. The mobile station shall include occurrences of this  
 15      field for all dialed digits after those sent in the *Origination*  
 16      *Message* of which this message is a continuation. If the  
 17      DIGIT\_MODE field is set to '0', the mobile station shall set  
 18      each occurrence of this field to the code value shown in Table  
 19      2.7.1.3.2.4-4 corresponding to the dialed digit. If the  
 20      DIGIT\_MODE field is set to '1', the mobile station shall set  
 21      each occurrence of this field to the ASCII representation  
 22      corresponding to the dialed digit, as specified in [9], with the  
 23      most significant bit set to '0'.
- 24      If the MORE\_RECORDS field in the last *Origination Message*, of which this message is a  
 25      continuation, is set to '1', the mobile station shall include one or more occurrences of the  
 26      following three-field record; otherwise, the mobile station shall not include the following  
 27      record.
- 28    RECORD\_TYPE    -    Information record type.  
 29      The mobile station shall set this field to the record type value  
 30      shown in Table 2.7.4-1.

1                   The mobile station shall not include the record type for QoS  
2                   Parameters information record if MOB\_QOS<sub>S</sub> is equal to '0'.

- 3           RECORD\_LEN    – Information record length.  
4                         The mobile station shall set this field to the number of octets  
5                         in the type-specific fields included in this record.
- 6           Type-specific fields    – Type-specific fields.  
7                         The mobile station shall include type-specific fields as  
8                         specified in 2.7.4.

## 1    2.7.2.3.2.10 Handoff Completion Message

2    MSG\_TAG: HOCM

3

| <b>Field</b> | <b>Length (bits)</b> |
|--------------|----------------------|
| LAST_HDM_SEQ | 2                    |

One or more occurrences of the following field:

|          |   |
|----------|---|
| PILOT_PN | 9 |
|----------|---|

4

- 5    LAST\_HDM\_SEQ    -    *Extended Handoff Direction Message, General Handoff  
6    Direction Message, or Universal Handoff Direction Message*  
7    sequence number.

8                         The mobile station shall set this field to the value of the  
9                         HDM\_SEQ field from the *Extended Handoff Direction Message,*  
10                        *General Handoff Direction Message,* or the *Universal Handoff  
11                        Direction Message* that determined the current Active Set.

- 12                       PILOT\_PN    -    Pilot PN sequence offset.

13                         The mobile station shall include one occurrence of this field  
14                         for each pilot in the current Active Set. The mobile station  
15                         shall set this field to the pilot PN sequence offset, relative to  
16                         the zero offset pilot PN sequence in units of 64 PN chips, for  
17                         this pilot. If the Active Set contains more than one pilot, the  
18                         mobile station shall include the pilot offsets in the same order  
19                         as in the *Extended Handoff Direction Message, the General  
20                        Handoff Direction Message, or the Universal Handoff Direction  
21                        Message* that determined the current Active Set.

## 1    2.7.2.3.2.11 Parameters Response Message

2    MSG\_TAG: PRSM

3

| Field                                            | Length (bits)             |
|--------------------------------------------------|---------------------------|
| One or more occurrences of the following record: |                           |
| PARAMETER_ID                                     | 16                        |
| PARAMETER_LEN                                    | 10                        |
| PARAMETER                                        | 0 or<br>PARAMETER_LEN + 1 |

4

5    The mobile station shall include one occurrence of the following three-field record for each  
6    occurrence of the PARAMETER\_ID field in the Forward Traffic Channel *Retrieve Parameters*  
7    *Message* to which this message is a response. See Annex E.

8    PARAMETER\_ID – Parameter identification.

9                 The mobile station shall set this field to the value of the  
10                PARAMETER\_ID field for this parameter from the *Retrieve*  
11                *Parameters Message* to which this message is a response.

12                PARAMETER\_LEN – Parameter length.

13                 The mobile station shall set this field to the length shown in  
14                Table E-1 corresponding to this PARAMETER\_ID.15                 If the mobile station is unable to return the value of this  
16                parameter, or if the parameter identification is unknown, the  
17                mobile station shall set this field to '1111111111'.

18                PARAMETER – Parameter value.

19                 The mobile station shall set this field equal to the value of the  
20                parameter shown in Table E-1 corresponding to the  
21                PARAMETER\_ID field of the record.22                 If the mobile station is unable to return the value of this  
23                parameter, or if the parameter identification is unknown, the  
24                mobile station shall omit this field.

1    2.7.2.3.2.12 Service Request Message

2    MSG\_TAG: SRQM

3

| Field        | Length (bits) |
|--------------|---------------|
| SERV_REQ_SEQ | 3             |
| REQ_PURPOSE  | 4             |

Zero or one occurrence of the following record:

|                      |                               |
|----------------------|-------------------------------|
| RECORD_TYPE          | 8                             |
| RECORD_LEN           | 8                             |
| Type-specific fields | $8 \times \text{RECORD\_LEN}$ |

4

5    SERV\_REQ\_SEQ    -    Service request sequence number.

6                      The mobile station shall set this field to the service request  
7                      sequence number pertaining to this request message as  
8                      specified in 2.6.4.1.2.1.1.

9    REQ\_PURPOSE    -    Request purpose.

10                     The mobile station shall set this field to the appropriate  
11                     REQ\_PURPOSE code from Table 2.7.2.3.2.12-1 to indicate the  
12                     purpose of the message.

13                     **Table 2.7.2.3.2.12-1. REQ\_PURPOSE Codes**

| REQ_PURPOSE<br>(binary)                   | Meaning                                                                                  |
|-------------------------------------------|------------------------------------------------------------------------------------------|
| 0000                                      | Indicates that the purpose of the message is to accept a proposed service configuration. |
| 0001                                      | Indicates that the purpose of the message is to reject a proposed service configuration. |
| 0010                                      | Indicates that the purpose of the message is to propose a service configuration.         |
| All other REQ_PURPOSE codes are reserved. |                                                                                          |

14

15    If the REQ\_PURPOSE code is set to '0010', the mobile station shall include one occurrence  
16                      of the following three-field record to specify the proposed service configuration; otherwise,  
17                      the mobile station shall not include the following record:

18    RECORD\_TYPE    -    Information record type.

1                   The mobile station shall set this field to the record type value  
2                   shown in Table 2.7.4-1 corresponding to the Service  
3                   Configuration information record.

- 4           RECORD\_LEN     – Information record length.  
5                   The mobile station shall set this field to the number of octets  
6                   included in the type-specific fields of the Service Configuration  
7                   information record.
- 8           Type-specific fields     – Type-specific fields.  
9                   The mobile station shall set these fields as specified in 3.7.5.7  
10                  for the Service Configuration information record.

1    2.7.2.3.2.13 Service Response Message

2    MSG\_TAG: SRPM

3

| Field        | Length (bits) |
|--------------|---------------|
| SERV_REQ_SEQ | 3             |
| RESP_PURPOSE | 4             |

Zero or one occurrence of the following record:

|                      |                               |
|----------------------|-------------------------------|
| RECORD_TYPE          | 8                             |
| RECORD_LEN           | 8                             |
| Type-specific fields | $8 \times \text{RECORD\_LEN}$ |

4

5    SERV\_REQ\_SEQ    -    Service request sequence number.

6                     The mobile station shall set this field to the value of the  
7                     SERV\_REQ\_SEQ field of the *Service Request Message* to which  
8                     it is responding.

9    RESP\_PURPOSE    -    Response purpose.

10                    The mobile station shall set this field to the appropriate  
11                    RESP\_PURPOSE code from Table 2.7.2.3.2.13-1 to indicate  
12                    the purpose of the message.

13

14

**Table 2.7.2.3.2.13-1. RESP\_PURPOSE Codes**

| RESP_PURPOSE<br>(binary)                   | Meaning                                                                                  |
|--------------------------------------------|------------------------------------------------------------------------------------------|
| 0000                                       | Indicates that the purpose of the message is to accept a proposed service configuration. |
| 0001                                       | Indicates that the purpose of the message is to reject a proposed service configuration. |
| 0010                                       | Indicates that the purpose of the message is to propose a service configuration.         |
| All other RESP_PURPOSE codes are reserved. |                                                                                          |

15

16    If the RESP\_PURPOSE field is set to '0010', the mobile station shall include one occurrence  
17    of the following record to specify the proposed service configuration; otherwise, the mobile  
18    station shall not include the following record:

- 1            RECORD\_TYPE    – Information record type.  
2                          The mobile station shall set this field to the record type value  
3                          shown in Table 2.7.4-1 corresponding to the Service  
4                          Configuration information record.
- 5            RECORD\_LEN    – Information record length.  
6                          The mobile station shall set this field to the number of octets  
7                          included in the type-specific fields of the Service Configuration  
8                          information record.
- 9            Type-specific fields    – Type-specific fields.  
10                          The mobile station shall set these fields as specified in 3.7.5.7  
11                          for the Service Configuration information record.

## 1    2.7.2.3.2.14 Service Connect Completion Message

2    MSG\_TAG: SCCM

3

| Field        | Length (bits) |
|--------------|---------------|
| RESERVED     | 1             |
| SERV_CON_SEQ | 3             |

4

5            RESERVED        Reserved bit.

6                              The mobile station shall set this field to '0'.

7            SERV\_CON\_SEQ    -    Service connect sequence number.

8                              The mobile station shall set this field to the value of the  
9                              SERV\_CON\_SEQ field of the *Service Connect Message* to which  
10                             it is responding.

## 1    2.7.2.3.2.15 Service Option Control Message

2    MSG\_TAG: SOCM

3

| <b>Field</b>         | <b>Length (bits)</b>            |
|----------------------|---------------------------------|
| CON_REF              | 8                               |
| SERVICE_OPTION       | 16                              |
| RESERVED             | 7                               |
| CTL_REC_LEN          | 8                               |
| Type-specific fields | $8 \times \text{CTL\_REC\_LEN}$ |

4

- 5            CON\_REF    - Service option connection reference.  
 6                         The mobile station shall set this field to the reference for the  
 7                         target service option (see 2.6.4.1.2).
- 8            SERVICE\_OPTION    - Service option.  
 9                         The mobile station shall set this field to the service option in  
 10                  use with the service option connection.
- 11            RESERVED    - Reserved bits.  
 12                         The mobile station shall set this field to '0000000'.
- 13            CTL\_REC\_LEN    - Control record length.  
 14                         The mobile station shall set this field to the number of octets  
 15                         included in the type-specific fields of this service option  
 16                         control record.
- 17            Type-specific fields    - Type-specific fields.  
 18                         The mobile station shall set these fields as specified by the  
 19                         requirements for the service option.

## 1    2.7.2.3.2.16 Status Response Message

2    MSG\_TAG: STRPM

3

| <b>Field</b>          | <b>Length (bits)</b>              |
|-----------------------|-----------------------------------|
| QUAL_INFO_TYPE        | 8                                 |
| QUAL_INFO_LEN         | 3                                 |
| Type-specific fields. | $8 \times \text{QUAL\_INFO\_LEN}$ |

One or more occurrences of the following record:

|                      |                               |
|----------------------|-------------------------------|
| RECORD_TYPE          | 8                             |
| RECORD_LEN           | 8                             |
| Type-specific fields | $8 \times \text{RECORD\_LEN}$ |

4

5    QUAL\_INFO\_TYPE    – Qualification information type.  
6                         The mobile station shall set this field to the QUAL\_INFO\_TYPE  
7                         field in the corresponding *Status Request Message*.8    QUAL\_INFO\_LEN    – Qualification information length.  
9                         The mobile station shall set this field to the QUAL\_INFO\_LEN  
10                        field in the corresponding *Status Request Message*.11   Type-specific fields    – Type-specific fields.  
12                         The mobile station shall set these fields to the qualification  
13                         information in the corresponding *Status Request Message*.14   The mobile station shall include all the records requested in the corresponding *Status  
15   Request Message*. The mobile station shall include one occurrence of the following fields for  
16   each information record that is included:17      RECORD\_TYPE    – Information record type.  
18                         The mobile station shall set this field to the record type value  
19                         shown in Table 3.7.2.3.2.15-2 corresponding to the type of  
20                         this information record.21      RECORD\_LEN    – Information record length.  
22                         The mobile station shall set this field to the number of octets  
23                         included in the type-specific fields of this information record.24   Type-specific fields    – Type-specific fields.  
25                         The mobile station shall set these fields as specified in 2.7.4  
26                         for this type of record, according to the mobile station's  
27                         capabilities under the qualification information included in  
28                         this message.

- 1    2.7.2.3.2.17 TMSI Assignment Completion Message
- 2    MSG\_TAG: TACM
- 3    There are no Layer 3 fields associated with this message.

## 1 2.7.2.3.2.18 Supplemental Channel Request Message

2 MSG\_TAG: SCRM

3

| <b>Field</b>     | <b>Length (bits)</b>                  |
|------------------|---------------------------------------|
| SIZE_OF_REQ_BLOB | 4                                     |
| REQ_BLOB         | $8 \times \text{SIZE\_OF\_REQ\_BLOB}$ |
| USE_SCRM_SEQ_NUM | 1                                     |
| SCRM_SEQ_NUM     | 0 or 4                                |
| REF_PN           | 0 or 9                                |
| PILOT_STRENGTH   | 0 or 6                                |
| NUM_ACT_PN       | 0 or 3                                |

If NUM\_ACT\_PN is included, the mobile station shall include NUM\_ACT\_PN occurrences of the following record:

|                    |    |
|--------------------|----|
| ACT_PN_PHASE       | 15 |
| ACT_PILOT_STRENGTH | 6  |

|              |        |
|--------------|--------|
| NUM_NGHBR_PN | 0 or 3 |
|--------------|--------|

If NUM\_NGHBR\_PN is included, the mobile station shall include NUM\_NGHBR\_PN occurrences of the following record:

|                      |    |
|----------------------|----|
| NGHBR_PN_PHASE       | 15 |
| NGHBR_PILOT_STRENGTH | 6  |

|                    |        |
|--------------------|--------|
| REF_PILOT_REC_INCL | 0 or 1 |
| REF_PILOT_REC_TYPE | 0 or 3 |

(continues on next page)

1

| Field                | Length (bits)                      |
|----------------------|------------------------------------|
| REF_RECORD_LEN       | 0 or 3                             |
| Type-specific fields | 0 or $8 \times \text{RECORD\_LEN}$ |

If NUM\_ACT\_PN is included, the mobile station shall include NUM\_ACT\_PN occurrences of the following record:

|                      |                                    |
|----------------------|------------------------------------|
| PILOT_REC_INCL       | 1                                  |
| PILOT_REC_TYPE       | 0 or 3                             |
| RECORD_LEN           | 0 or 3                             |
| Type-specific fields | 0 or $8 \times \text{RECORD\_LEN}$ |

If NUM\_NGHBR\_PN is included, the mobile station shall include NUM\_NGHBR\_PN occurrences of the following record:

|                      |                                    |
|----------------------|------------------------------------|
| PILOT_REC_INCL       | 1                                  |
| PILOT_REC_TYPE       | 0 or 3                             |
| RECORD_LEN           | 0 or 3                             |
| Type-specific fields | 0 or $8 \times \text{RECORD\_LEN}$ |

2

- 3      SIZE\_OF\_REQ\_BLOB    -    Size of the request information block of bytes (REQ\_BLOB).  
4                          The mobile station shall set this field to the number of bytes  
5                          in the Reverse Supplemental Code Channel or the Reverse  
6                          Supplemental Channel request block of bytes (REQ\_BLOB).
- 7      REQ\_BLOB    -    Reverse Supplemental Code Channel request block of bytes.  
8                          The mobile station shall include information in this field  
9                          containing the parameters that specify the characteristics of  
10                         the Reverse Supplemental Code Channels or the Reverse  
11                         Supplemental Channel request. The mobile station shall set  
12                         this field in accordance with the connected Service Option.
- 13     USE\_SCRM\_SEQ\_NUM    -    Use *Supplemental Channel Request Message* sequence number  
14                         indicator.  
15                          The mobile station shall set this field to '1' if the *Supplemental*  
16                         *Channel Request Message* sequence number is included in  
17                         this message; otherwise, the mobile station shall set this field  
18                         to '0'.
- 19     SCRM\_SEQ\_NUM    -    *Supplemental Channel Request Message* sequence number.

If USE\_SCRM\_SEQ\_NUM is set to '1', the mobile station shall set this field to the *Supplemental Channel Request Message* sequence number that the base station is to include in a *Supplemental Channel Assignment Message* or *Extended Supplemental Channel Assignment Message* which is in response to this message; otherwise, the mobile station shall omit this field.

REF\_PN - Time reference PN sequence offset.  
 If SIZE\_OF\_REQ\_BLOB is set to '0000' and USE\_SCRM\_SEQ\_NUM is set to '0', the mobile station shall omit this field; otherwise, the mobile station shall set this field to the PN sequence offset of the pilot used by the mobile station to derive its time reference, relative to the zero offset pilot PN sequence in units of 64 PN chips.

PILOT\_STRENGTH - Reference pilot strength.  
 If SIZE\_OF\_REQ\_BLOB is set to '0000' and USE\_SCRM\_SEQ\_NUM is set to '0', the mobile station shall omit this field; otherwise, the mobile station shall set this field to

$$\lfloor -2 \times 10 \times \log_{10} PS \rfloor,$$

where PS is the strength of the pilot used by the mobile station to derive its time reference (see 2.1.5 of [2]), measured as specified in 2.6.6.2.2. If this value ( $\lfloor -2 \times 10 \log_{10} PS \rfloor$ ) is less than 0, the mobile station shall set this field to '000000'. If this value is greater than '111111', the mobile station shall set this field to '111111'.

NUM\_ACT\_PN - Number of reported pilots in the Active Set.  
 If SIZE\_OF\_REQ\_BLOB is set to '0000' and USE\_SCRM\_SEQ\_NUM is set to '0', the mobile station shall omit this field; otherwise, the mobile station shall set this field to the number of reported pilots in the Active Set other than the pilot identified by the REF\_PN field.

If SIZE\_OF\_REQ\_BLOB is set to '0000' and USE\_SCRM\_SEQ\_NUM is set to '0', the mobile station shall not include any occurrence of the following record; otherwise, the mobile station shall include one occurrence of the following two-field record for each pilot in the Active Set other than the pilot identified by the REF\_PN field:

ACT\_PN\_PHASE - Active pilot measured phase.  
 The mobile station shall set this field to the phase of this pilot PN sequence relative to the zero offset pilot PN sequence, in units of one PN chip, as specified in 2.6.6.2.4.

ACT\_PILOT\_STRENGTH - Active pilot strength.  
 The mobile station shall set this field to

$$\lfloor -2 \times 10 \times \log_{10} PS \rfloor,$$

where PS is the strength of this pilot, measured as specified in 2.6.6.2.2. If this value ( $\lfloor -2 \times 10 \log_{10} PS \rfloor$ ) is less than 0, the mobile station shall set this field to '000000'. If this value is greater than 63, the mobile station shall set this field to '111111'.

- NUM\_NGHBR\_PN** – Number of reported neighbor pilots in the Candidate Set and the Neighbor Set.

If SIZE\_OF\_REQ\_BLOB is set to '0000', the mobile station shall omit this field; otherwise, the mobile station shall set this field as follows:

The mobile station shall set this field to the number of reported pilots which are not in the Active Set and have measurable strength that exceeds ( $T_{ADD_s} - T_{MULCHAN_s}$ ). ( $NUM_{ACT\_PN} + NUM_{NGHBR\_PN}$ ) shall not exceed 8. If there are more than ( $8 - NUM_{ACT\_PN}$ ) pilots not in the Active Set with strength exceeding ( $T_{ADD_s} - T_{MULCHAN_s}$ ), the mobile station shall set  $NUM_{NGHBR\_PN}$  to ( $8 - NUM_{ACT\_PN}$ ) and report the  $NUM_{NGHBR\_PN}$  strongest pilots not in the Active Set.

If SIZE\_OF\_REQ\_BLOB is set to '0000' and USE\_SCRM\_SEQ\_NUM is set to '0', the mobile station shall not include any occurrence of the following record; otherwise, the mobile station shall include one occurrence of the following two-field record for each of the NUM\_NGHBR\_PN reported pilots.

- NGHBR\_PN\_PHASE – Neighbor pilot measured phase.

The mobile station shall set this field to the phase of this pilot PN sequence relative to the zero offset pilot PN sequence, in units of one PN chip, as specified in 2.6.6.2.4.

- NGHBR\_PILOT-

- \_STRENGTH – Neighbor pilot strength.

The mobile station shall set this field to

$$\lfloor -2 \times 10 \times \log_{10} PS \rfloor,$$

where PS is the strength of this pilot, measured as specified in 2.6.6.2.2. If this value ( $-2 \times 10 \log_{10} PS$ ) is less than 0, the mobile station shall set this field to '000000'. If this value is greater than 63, the mobile station shall set this field to '111111'.

- REF\_PILOT\_REC\_INCL** – Additional pilot information included indicator.

If SIZE\_OF\_REQ\_BLOB is set to '0000', the mobile station shall omit this field; otherwise, the mobile station shall set include this field and set it as follows:

The mobile station shall set this field to '1' if additional reference pilot information listed in the REF\_PILOT\_REC\_TYPE and REF\_RECORD\_LEN fields are included. The mobile station shall set this field to '0' if the corresponding pilot is the common pilot and there is no additional pilot information included.

- 1 REF\_PILOT\_REC\_TYPE – Reference pilot record type.  
 2 If REF\_PILOT\_REC\_INCL is included and set to ‘0’, the mobile  
 3 station shall omit this field. If REF\_PILOT\_REC\_INCL is  
 4 included and set to ‘1’, the mobile station shall set this field to  
 5 the REF\_PILOT\_REC\_TYPE value shown in Table 2.7.2.3.2.  
 6 3334-1 corresponding to the type of Pilot Record specified by  
 7 this record.
- 8 REF\_RECORD\_LEN – Pilot record length for the reference pilot.  
 9 If REF\_PILOT\_REC\_INCL is included and set to ‘0’, the mobile  
 10 station shall omit this field. If REF\_PILOT\_REC\_INCL is  
 11 included and set to ‘1’, the mobile station shall set this field to  
 12 the number of octets in the type-specific fields of this pilot  
 13 record.
- 14 Type-specific fields – Pilot record type-specific fields for the reference pilot.  
 15 If REF\_PILOT\_REC\_INCL is included and set to ‘0’, the mobile  
 16 station shall omit this field. If REF\_PILOT\_REC\_INCL is  
 17 included and set to ‘1’, the mobile station shall include type-  
 18 specific fields based on the REF\_PILOT\_REC\_TYPE of this pilot  
 19 record.

20  
 21 If REF\_PILOT\_REC\_TYPE is equal to ‘000’, the mobile station shall include the following  
 22 fields:

| Field        | Length (bits)         |
|--------------|-----------------------|
| QOF          | 2                     |
| WALSH_LENGTH | 3                     |
| PILOT_WALSH  | (WALSH_LENGTH +<br>6) |
| RESERVED     | 0 to 7 (as needed)    |

- 24  
 25 QOF – Quasi-orthogonal function index.  
 26 The mobile station shall set this field to the index of the  
 27 Quasi-orthogonal function of the corresponding Auxiliary  
 28 Pilot.  
 29 WALSH\_LENGTH – Length of the Walsh code for the reference pilot.  
 30 The mobile station shall set this field to the WALSH\_LENGTH  
 31 value shown in Table 2.7.2.3.2.343-2 corresponding to the  
 32 length of the Walsh code for the pilot that is used as the  
 33 Auxiliary Pilot.  
 34 PILOT\_WALSH – Walsh code for the Auxiliary Pilot used by the mobile station  
 35 to derive its time reference.

The mobile station shall set this field to the Walsh code corresponding to the Auxiliary Pilot.

- RESERVED** – Reserved bits.

The base station shall set all the bits of this field to '0' to make the entire record octet-aligned.

If SIZE\_OF\_REQ\_BLOB is set to '0000' and USE\_SCRM\_SEQ\_NUM is set to '0', the mobile station shall not include any occurrence of the following record; otherwise, the mobile station shall include one occurrence of the following record for each pilot in the Active Set other than the pilot identified by the REF\_PN field:

- PILOT\_REC\_INCL** – Additional pilot information included indicator.

The mobile station shall set this field to '1' if additional pilot information listed in the PILOT\_REC\_TYPE and RECORD\_LEN fields are included. The mobile station shall set this field to '0' if the corresponding pilot is the common pilot and there is no additional pilot information included.

- PILOT\_REC\_TYPE** – Reference pilot record type.

If PILOT\_REC\_INCL is set to '0', the mobile station shall omit this field; otherwise, the mobile station shall set this field to the PILOT\_REC\_TYPE value shown in Table-32.7.2.3.2.\_3334-1 corresponding to the type of Pilot Record specified by this record.

- RECORD\_LEN** – Pilot record length.

If PILOT\_REC\_INCL is set to '0', the mobile station shall omit this field; otherwise, the mobile station shall set this field to the number of octets in the type-specific fields of this pilot record.

- Type-specific fields – Pilot record type-specific fields.

If PILOT\_REC\_INCL is set to '0', the mobile station shall omit this field; otherwise, the mobile station shall include type-specific fields based on the PILOT\_REC\_TYPE of this pilot record as described in 3.7.6.1.

If SIZE\_OF\_REQ\_BLOB is set to '0000' and USE\_SCRM\_SEQ\_NUM is set to '0', the mobile station shall not include any occurrence of the following record; otherwise, the mobile station shall include one occurrence of the following record for each of the NUM\_NGHR\_PN reported pilots.

- PILOT REC INCL – Additional pilot information included indicator.

The mobile station shall set this field to '1' if additional pilot information listed in the PILOT\_REC\_TYPE and RECORD\_LEN fields are included. The mobile station shall set this field to '0' if the corresponding pilot is the common pilot and there is no additional pilot information included.

- PILOT\_REC\_TYPE** – Reference pilot record type.

1                   If PILOT\_REC\_INCL is set to '0', the mobile station shall omit  
2                   this field; otherwise, the mobile station shall set this field to  
3                   the PILOT\_REC\_TYPE value shown in Table 3.7.2.3.2.33-1  
4                   corresponding to the type of Pilot Record specified by this  
5                   record.

6           RECORD\_LEN    - Pilot record length.

7                   If PILOT\_REC\_INCL is set to '0', the mobile station shall omit  
8                   this field; otherwise, the mobile station shall set this field to  
9                   the number of octets in the type-specific fields of this pilot  
10                  record.

11           Type-specific fields    - Pilot record type-specific fields.

12                   If PILOT\_REC\_INCL is set to '0', the mobile station shall omit  
13                   this field; otherwise, the mobile station shall include type-  
14                   specific fields based on the PILOT\_REC\_TYPE of this pilot  
15                  record as described in 3.7.6.1.

16

## 1    2.7.2.3.2.19 Candidate Frequency Search Response Message

2    MSG\_TAG: CFSRSM

3

| <b>Field</b>       | <b>Length (bits)</b> |
|--------------------|----------------------|
| LAST_CFSRM_SEQ     | 2                    |
| TOTAL_OFF_TIME_FWD | 6                    |
| MAX_OFF_TIME_FWD   | 6                    |
| TOTAL_OFF_TIME_REV | 6                    |
| MAX_OFF_TIME_REV   | 6                    |
| PCG_OFF_TIMES      | 1                    |
| ALIGN_TIMING_USED  | 1                    |
| MAX_NUM_VISITS     | 0 or 5               |
| INTER_VISIT_TIME   | 0 or 6               |

4

5    LAST\_CFSRM\_SEQ   -   Candidate Frequency Search Request Message sequence  
6    number.7                         The mobile station shall set this field to the value of the  
8                         CFSRM\_SEQ field from the Candidate Frequency Search  
9                         Request Message to which this message is a response.10   TOTAL\_OFF\_TIME\_FWD   -   Total time that the mobile station is off the Forward Traffic  
11   Channel.12                         The mobile station shall set this field to the mobile station's  
13                         estimate of the total number of frames or power control  
14                         groups for which the mobile station will need to suspend its  
15                         current Forward Traffic Channel processing in order to tune to  
16                         the Candidate Frequency, to perform the requested search,  
17                         and to re-tune to the Serving Frequency. If the mobile station  
18                         requires multiple visits to the Candidate Frequency to  
19                         complete the requested search, the mobile station shall set  
20                         this field to the total number of frames (if PCG\_OFF\_TIME is  
21                         set to '0') or power control groups (if PCG\_OFF\_TIME is set to  
22                         '1') for all visits to the Candidate Frequency in a search  
23                         period.24   MAX\_OFF\_TIME\_FWD   -   Maximum time the mobile station is away from the Forward  
25                         Traffic Channel.

The mobile station shall set this field to the mobile station's estimate of the maximum number of frames (if PCG\_OFF\_TIME is set to '0') or power control groups (if PCG\_OFF\_TIME is set to '1') for which the mobile station will need to suspend its current Forward Traffic Channel processing during a visit to the Candidate Frequency, to perform a part of the requested search, and to re-tune to the Serving Frequency.

- TOTAL\_OFF\_TIME\_REV** – Total time that the mobile station is away from the Reverse Traffic Channel.

The mobile station shall set this field to the mobile station's estimate of the total number of frames or power control groups for which the mobile station will need to suspend its current Reverse Traffic Channel processing in order to tune to the Candidate Frequency, to perform the requested search, and to re-tune to the Serving Frequency. If the mobile station requires multiple visits to the Candidate Frequency to complete the requested search, the mobile station shall set this field to the total number of frames or power control groups for all visits to the Candidate Frequency in a search period.

- MAX\_OFF\_TIME\_REV** – Maximum time the mobile station is away from the Reverse Traffic Channel.

The mobile station shall set this field to the mobile station's estimate of the maximum number of frames or power control groups for which the mobile station will need to suspend its current Forward Traffic Channel processing during a visit to the Candidate Frequency, to perform a part of the requested search, and to re-tune to the Serving Frequency.

- PCG\_OFF\_TIMES** – Indicator if off times are expressed in units of power control groups.

If P\_REV\_IN\_USE<sub>s</sub> is less than six, the mobile station shall set this field to '0'; otherwise, the mobile station shall set this field as follows:

The mobile station shall set this field to '1' if it expresses TOTAL\_OFF\_TIME\_FWD, MAX\_OFF\_TIME\_FWD, TOTAL\_OFF\_TIME\_REV, and MAX\_OFF\_TIME\_REV in units of power control groups; otherwise, the mobile station shall set this field to '0' so that TOTAL\_OFF\_TIME\_FWD, MAX\_OFF\_TIME\_FWD, TOTAL\_OFF\_TIME\_REV, and MAX\_OFF\_TIME\_REV are expressed in units of frames.

- ALIGN\_TIMING\_USED** – Alignment timing used indicator.

The mobile station shall set this field to '1' if it will align the times of its visits away from the Serving Frequency, as requested by the base station; otherwise, the mobile station shall set this field to '0'.

- `MAX_NUM_VISITS` – Maximum number of visits per search period.

1           If the ALIGN\_TIMING\_USED field is set to '0', the mobile  
2           station shall omit this field; otherwise, the mobile station shall  
3           include this field and set it to the maximum number of visits  
4           per search period minus one.

- 5           INTER\_VISIT\_TIME   – Inter-visit time.  
6           If the mobile station includes the MAX\_NUM\_VISITS field and  
7           sets it to a value other than 0, the mobile station shall include  
8           this field and set it as described below; otherwise, the mobile  
9           station shall omit this field.

10          The mobile station shall set INTER\_VISIT\_TIME to

$$11 \quad \min ( 63, \lceil inter\_visit\_time / search\_time\_resolution \rceil )$$

12          where

13          *search\_time\_resolution* is equal to 0.02 if the mobile  
14          station sets PCG\_OFF\_TIMES to '0'; otherwise,  
15          *search\_time\_resolution* is equal to 0.00125,

16          and

17          *inter\_visit\_time* is the mobile station's estimate of the  
18          time, in seconds, between the beginning of consecutive  
19          visits away from the Serving Frequency.

## 1    2.7.2.3.2.20 Candidate Frequency Search Report Message

2    MSG\_TAG: CFSRPM

3

| <b>Field</b>         | <b>Length (bits)</b>     |
|----------------------|--------------------------|
| LAST_SRCH_MSG        | 1                        |
| LAST_SRCH_MSG_SEQ    | 2                        |
| SEARCH_MODE          | 4                        |
| MODE_SPECIFIC_LEN    | 8                        |
| Mode-specific fields | 8 ×<br>MODE_SPECIFIC_LEN |

4

5    LAST\_SRCH\_MSG    -    Indicator for the type of message that started the search being  
6    reported.7                         If this message is being sent to report the results of a single  
8                         search or a periodic search started by a *Candidate Frequency*  
9                         *Search Control Message* or by a *Candidate Frequency Search*  
10                       *Request Message*, the mobile station shall set this field to '0';  
11                       otherwise, the mobile station shall set this field to '1'.12    LAST\_SRCH\_MSG\_SEQ    -    Sequence number received in the message that started the  
13    search being reported.14                         If this message is being sent in response to a *Candidate*  
15                       *Frequency Search Control Message*, the mobile station shall set  
16                       this field to the value of the CFSCM\_SEQ field from the  
17                       *Candidate Frequency Search Control Message*.18                         If this message is being sent in response to a *Candidate*  
19                       *Frequency Search Request Message*, the mobile station shall  
20                       set this field to the value of the CFSRM\_SEQ field from the  
21                       *Candidate Frequency Search Request Message*.22                         If this message is being sent in response to a *General Handoff*  
23                       *Direction Message* or a *Universal Handoff Direction Message*,  
24                       the mobile station shall set this field to the value of the  
25                       HDM\_SEQ field from the *General Handoff Direction Message* or  
26                       the *Universal Handoff Direction Message*.

27    SEARCH\_MODE    -    Search mode.

28                         The mobile station shall set this field to the SEARCH\_MODE  
29                       value shown in Table 3.7.3.3.2.27-2 corresponding to the type  
30                       of search specified by the *Candidate Frequency Search Request*  
31                       *Message* that specified the search parameters.

32    MODE\_SPECIFIC\_LEN    -    Length of mode-specific fields included in this message.

33    Mode-specific fields    -    Search mode-specific fields.

1           The mobile station shall include mode-specific fields based on  
 2           the SEARCH\_MODE of this message.

3       If SEARCH\_MODE is equal to '0000', the mobile station shall include the following fields:

4

| Field           | Length (bits) |
|-----------------|---------------|
| BAND_CLASS      | 5             |
| CDMA_FREQ       | 11            |
| SF_TOTAL_RX_PWR | 5             |
| CF_TOTAL_RX_PWR | 5             |
| NUM_PILOTS      | 6             |

NUM\_PILOTS occurrences of the following record:

|                |    |
|----------------|----|
| PILOT_PN_PHASE | 15 |
| PILOT_STRENGTH | 6  |
| RESERVED_1     | 3  |

NUM\_PILOTS occurrences of the following record:

|                      |                                    |
|----------------------|------------------------------------|
| PILOT_REC_INCL       | 1                                  |
| PILOT_REC_TYPE       | 0 or 3                             |
| RECORD_LEN           | 0 or 3                             |
| Type-specific fields | 0 or $8 \times \text{RECORD\_LEN}$ |

5

6

BAND\_CLASS - Band class.

7

8

9

10

11

12

13

14

If this message is being sent to report an unsuccessful hard handoff attempt, the mobile station shall set this field to the CDMA band class corresponding to the CDMA Frequency Assignment for the Target Frequency, as specified in [30]. If this message is being sent to report measurements on a Candidate Frequency, the mobile station shall set this field to the CDMA band class corresponding to the CDMA Frequency Assignment for the Candidate Frequency, as specified in [30].

15

CDMA\_FREQ - Frequency assignment.

16

17

18

19

20

21

22

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25

If this message is being sent to report an unsuccessful hard handoff attempt, the mobile station shall set this field to the CDMA Channel number, in the specified CDMA band class, corresponding to the CDMA Frequency Assignment for the Target Frequency, as specified in 3.1.1.1 of [2]. If this message is being sent to report measurements on a Candidate Frequency, the mobile station shall set this field to the CDMA Channel number, in the specified CDMA band class, corresponding to the CDMA Frequency Assignment for the Candidate Frequency, as specified in 3.1.1.1 of [2].

- 1 SF\_TOTAL\_RX\_PWR – Total received power on the Serving Frequency.  
 2 The mobile station shall set this field to  
 3  $\min(31, \lceil (10 \times \log_{10}(\text{total\_received\_power}) + 110) / 2 \rceil)$   
 4 where *total\_received\_power* is the mean input power received  
 5 by the mobile station on the Serving Frequency, in mW/1.23  
 6 MHz.

- 7 CF\_TOTAL\_RX\_PWR – Indicates the total received power on the Target Frequency or  
 8 the Candidate Frequency.  
 9 If this message is being sent to report an unsuccessful hard  
 10 handoff attempt, the mobile station shall include the total  
 11 received power on the Target Frequency; if this message is  
 12 being sent to report measurements on a Candidate Frequency,  
 13 the mobile station shall include the total received power on  
 14 the Candidate Frequency.

15 The mobile station shall set this field to

$$16 \min(31, \lceil (10 \times \log_{10}(\text{total\_received\_power}) + 110) / 2 \rceil)$$

17 where *total\_received\_power* is the mean input power received  
 18 by the mobile station on the Target Frequency or the  
 19 Candidate Frequency, in mW/1.23 MHz.

- 20 NUM\_PILOTS – Number of pilots.

21 The mobile station shall set this field to the number of pilots  
 22 included in this message. The mobile station shall set this  
 23 field to a value from 0 to N<sub>8m</sub>, inclusive.

24  
 25 The mobile station shall include NUM\_PILOTS occurrences of the following three-field  
 26 record:

- 27 PILOT\_PN\_PHASE – Pilot measured phase.

28 The mobile station shall set this field to the phase of the pilot  
 29 PN sequence relative to the zero offset pilot PN sequence of  
 30 this pilot, in units of one PN chip, as specified in 2.6.6.2.4.

- 31 PILOT\_STRENGTH – Pilot strength.

32 The mobile station shall set this field to

$$33 \lfloor -2 \times 10 \times \log_{10} PS \rfloor,$$

34 where PS is the strength of this pilot, measured as specified in  
 35 2.6.6.2.2. If this value ( $\lfloor -2 \times 10 \log_{10} PS \rfloor$ ) is less than 0, the  
 36 mobile station shall set this field to '000000'. If this value is  
 37 greater than 63, the mobile station shall set this field to  
 38 '111111'.

- 39 RESERVED\_1 – Reserved bits.

40 The mobile station shall set this field to '000'.

1 The mobile station shall include NUM\_PILOTS occurrences of the following record in the  
 2 same order as the pilots listed above.

3 PILOT\_REC\_INCL – Additional pilot information included indicator.

4 The mobile station shall set this field to ‘1’ if additional pilot  
 5 information listed in the PILOT\_REC\_TYPE and RECORD\_LEN  
 6 fields are included. The mobile station shall set this field to ‘0’  
 7 if the corresponding pilot is the common pilot and there is no  
 8 additional pilot information included.

9 PILOT\_REC\_TYPE – Reference Pilot record type

10 If PILOT\_REC\_INCL is set to ‘0’, the mobile station shall omit  
 11 this field; otherwise, the mobile station shall set this field to  
 12 the PILOT\_REC\_TYPE value shown in Table 2.7.2.3.2.3.43-1  
 13 corresponding to the type of Pilot Record specified by this  
 14 record.

15 RECORD\_LEN – Pilot record length.

16 If PILOT\_REC\_INCL is set to ‘0’, the mobile station shall omit  
 17 this field; otherwise, the mobile station shall set this field to  
 18 the number of octets in the type-specific fields of this pilot  
 19 record.

20 Type-specific fields – Pilot record type-specific fields.

21 If PILOT\_REC\_INCL is set to ‘0’, the mobile station shall omit  
 22 this field; otherwise, the mobile station shall include type-  
 23 specific fields based on the PILOT\_REC\_TYPE of this pilot  
 24 record as described in 3.7.6.1.

25 If SEARCH\_MODE is equal to ‘0001’, the mobile station shall include the following fields:

| Field            | Length (bits) |
|------------------|---------------|
| BAND_CLASS       | 5             |
| SF_TOTAL_RX_PWR  | 5             |
| NUM_ANALOG_FREQS | 3             |
| RESERVED_2       | 5             |

26 NUM\_ANALOG\_FREQS occurrences of the following record:

|                 |    |
|-----------------|----|
| ANALOG_FREQ     | 11 |
| SIGNAL_STRENGTH | 6  |

|            |                   |
|------------|-------------------|
| RESERVED_3 | 0 - 7 (as needed) |
|------------|-------------------|

27 BAND\_CLASS – Band class.

28 The mobile station shall set this field to the CDMA band class  
 29 corresponding to the analog frequencies that are being  
 30 reported in this message, as specified in [30].  
 31  
 32

- 1 SF\_TOTAL\_RX\_PWR – Indicates the total received power on the Serving Frequency.  
 2 The mobile station shall set this field to  
 3  $\min(31, \lceil (10 \times \log_{10}(\text{total\_received\_power}) + 110) / 2 \rceil)$   
 4 where *total\_received\_power* is the mean input power received  
 5 by the mobile station on the Serving Frequency, in mW/1.23  
 6 MHz.
- 7 NUM\_ANALOG\_FREQS – Number of analog frequencies.  
 8 The base station shall set this field to the number of analog  
 9 frequencies included in this message.
- 10 RESERVED\_2 – Reserved bits.  
 11 The mobile station shall set this field to '00000'.
- 12 |  
 13 The message will include NUM\_ANALOG\_FREQS occurrences of the following [three](#)[two](#)-field  
 14 record, one for each neighbor on the candidate frequency.
- 15 | ANALOG\_FREQ – Analog frequency channel number.  
 16 | The base station shall set this field analog frequency channel  
 17 | number to search.
- 18 | SIGNAL\_STRENGTH – Signal strength.  
 19 | The mobile station shall set this field to  
 20 |  $\lfloor -0.5 \times SS \rfloor$ ,  
 21 | where SS is the strength of this signal, measured in dBm as  
 22 | specified in 2.6.6.2.10.3. If this value ( $\lfloor -0.5 \times SS \rfloor$ ) is less  
 23 | than 0, the mobile station shall set this field to '000000'. If  
 24 | this value is greater than 63, the mobile station shall set this  
 25 | field to '111111'.
- 26 |  
 27 | RESERVED\_3 – The mobile station shall add reserved bits as needed in order  
 28 | to make the length of the entire [message-record](#) equal to an  
 29 | integer number of octets. The mobile station shall set each of  
 30 | these bits to '0'.

## 1 2.7.2.3.2.21 Periodic Pilot Strength Measurement Message

2 MSG\_TAG: PPSMM

3

| Field          | Length (bits) |
|----------------|---------------|
| REF_PN         | 9             |
| PILOT_STRENGTH | 6             |
| KEEP           | 1             |
| SF_RX_PWR      | 5             |
| NUM_PILOT      | 4             |

NUM\_PILOT occurrences of the following record:

|                |    |
|----------------|----|
| PILOT_PN_PHASE | 15 |
| PILOT_STRENGTH | 6  |
| KEEP           | 1  |

NUM\_PIOT\$ occurrences of the following record:

|                      |                                    |
|----------------------|------------------------------------|
| PILOT_REC_INCL       | 1                                  |
| PILOT_REC_TYPE       | 0 or 3                             |
| RECORD_LEN           | 0 or 3                             |
| Type-specific fields | 0 or $8 \times \text{RECORD\_LEN}$ |

|                     |        |
|---------------------|--------|
| SETPT_INCL          | 1      |
| FCH_INCL            | 0 or 1 |
| FPC_FCH_CURR_SETPT  | 0 or 8 |
| DCCH_INCL           | 0 or 1 |
| FPC_DCCH_CURR_SETPT | 0 or 8 |
| NUM_SUP             | 0 or 2 |

If NUM\_SUP is included, include NUM\_SUP occurrences of the following fields:

|                    |   |
|--------------------|---|
| SCH_ID             | 1 |
| FPC_SCH_CURR_SETPT | 8 |

4

5

REF\_PN - Time reference PN sequence offset.

1                   The mobile station shall set this field to the PN sequence offset  
 2                   of the pilot used by the mobile station to derive its time  
 3                   reference, relative to the zero offset pilot PN sequence in units  
 4                   of 64 PN chips.

5           PILOT\_STRENGTH - Pilot strength.

6                   The mobile station shall set this field to

$$\lfloor -2 \times 10 \times \log_{10} PS \rfloor,$$

8                   where PS is the strength of the pilot used by the mobile  
 9                   station to derive its time reference (see [2]), measured as  
 10                  specified in 2.6.6.2.2. If this value is less than 0, the mobile  
 11                  station shall set this field to '000000'. If this value is greater  
 12                  than '111111', the mobile station shall set this field to  
 13                  '111111'.

14           KEEP - Keep pilot indicator.

15                   If the handoff drop timer (see 2.6.6.2.3) corresponding to the  
 16                   pilot used by the mobile station to derive its time reference  
 17                   (see [2]) has expired, the mobile station shall set this field to  
 18                   '0'; otherwise, the mobile station shall set this field to '1'.

19           SF\_RX\_PWR - The received power spectral density of the Serving Frequency.

20                   The mobile station shall set this field to

$$\min (31, \lceil (10 \times \log_{10}(spec\_density) + 120) / 2 \rceil)$$

22                   where *spec\_density* is the mobile station received power  
 23                   spectral density of the Serving Frequency, in mW/1.23MHz.

24                   If this value is less than 0, the mobile station shall set this  
 25                   field to '00000'.

26           NUM\_PILOT - Number of Pilots.

27                   The mobile station shall set this field to the number of other  
 28                   reported pilots of the Active Set and the Candidate Set.

30                   The mobile station shall include NUM\_PILOT occurrences of the following three-field record,  
 31                   one for each pilot in the Active Set and one for each pilot in the Candidate Set, other than  
 32                   the pilot identified by the REF\_PN field.

33           PILOT\_PN\_PHASE - Pilot measured phase.

34                   The mobile station shall set this field to the phase of the pilot  
 35                   PN sequence relative to the zero offset pilot PN sequence of  
 36                   this pilot, in units of one PN chip, as specified in 2.6.6.2.4.

37           PILOT\_STRENGTH - Pilot strength.

38                   The mobile station shall set this field to

$$\lfloor -2 \times 10 \times \log_{10} PS \rfloor,$$

1 where PS is the strength of this pilot, measured as specified in  
 2 2.6.6.2.2. If this value is less than 0, the mobile station shall  
 3 set this field to '000000'. If this value is greater than  
 4 '111111', the mobile station shall set this field to '111111'.

- 5           KEEP    - Keep pilot indicator.  
 6                 If the handoff drop timer (see 2.6.6.2.3) corresponding to this  
 7 pilot has expired, the mobile station shall set this field to '0';  
 8 otherwise, the mobile station shall set this field to '1'.

9 The mobile station shall include NUM\_PILOTS occurrences of the following record in the  
 10 same order as the pilots listed above.

- 11          PILOT\_REC\_INCL - Additional pilot information included indicator.  
 12                 The mobile station shall set this field to '1' if additional pilot  
 13 information listed in the PILOT\_REC\_TYPE and RECORD\_LEN  
 14 fields are included. The mobile station shall set this field to '0'  
 15 if the corresponding pilot is the common pilot and there is no  
 16 additional pilot information included.
- 17          PILOT\_REC\_TYPE - Reference Pilot record type  
 18                 If PILOT\_REC\_INCL is set to '0', the mobile station shall omit  
 19 this field; otherwise, the mobile station shall set this field to  
 20 the PILOT\_REC\_TYPE value shown in Table 2.7.2.3.2.34-1  
 21 corresponding to the type of Pilot Record specified by this  
 22 record.
- 23          RECORD\_LEN - Pilot record length.  
 24                 If PILOT\_REC\_INCL is set to '0', the mobile station shall omit  
 25 this field; otherwise, the mobile station shall set this field to  
 26 the number of octets in the type-specific fields of this pilot  
 27 record.
- 28          Type-specific fields - Pilot record type-specific fields.  
 29                 If PILOT\_REC\_INCL is set to '0', the mobile station shall omit  
 30 this field; otherwise, the mobile station shall include type-  
 31 specific fields based on the PILOT\_REC\_TYPE of this pilot  
 32 record as described in 2.7.2.3.2.34.
- 33          SETPT\_INCL - Setpoint information included indicator.  
 34                 The mobile station shall set this field to '1' if setpoint  
 35 information is included in this message; otherwise, the mobile  
 36 station shall set this field to '0'.
- 37          FCH\_INCL - Fundamental Channel included indicator.  
 38                 If SETPT\_INCL is equal to '1', the mobile station shall include  
 39 this field and set it as follows; otherwise, the mobile station  
 40 shall omit this field.  
 41                 The mobile station shall set this field to '1' if FPC\_PRI\_CHAN<sub>s</sub>  
 42 is equal to '0'; otherwise, the mobile station shall set this field  
 43 to '0'.

- 1                   FPC\_FCH-
- 2                \_CURR\_SETPT - The outer loop  $E_b/N_t$  setpoint of the Fundamental Channel.
- 3                   If SETPT\_INCL is equal to '1' and if FCH\_INCL is set to '1', the  
4                   mobile station shall set this field to the value of the  $E_b/N_t$   
5                   setpoint, in units of 0.125 dB, currently in use in the  
6                   Fundamental Channel power control outer loop estimation;  
7                   otherwise, the mobile station shall omit this field.
- 8                DCCH\_INCL - Dedicated Control Channel included indicator.
- 9                   If SETPT\_INCL is equal to '1', the mobile station shall include  
10                  this field and set it as follows; otherwise, the mobile station  
11                  shall omit this field.
- 12                  The mobile station shall set this field to '1' if FPC\_PRI\_CHANs  
13                  is equal to '1'; otherwise, the mobile station shall set this field  
14                  to '0'.
- 15                   FPC\_DCCH-
- 16                \_CURR\_SETPT - The outer loop  $E_b/N_t$  setpoint of the Forward Dedicated  
17                  Channel.
- 18                   If SETPT\_INCL is equal to '1', and if DCCH\_INCL is set to '1',  
19                  the mobile station shall set this field to the value of the  $E_b/N_t$   
20                  setpoint, in units of 0.125 dB, currently in use in the  
21                  Dedicated Channel power control outer loop estimation;  
22                  otherwise, the mobile station shall omit this field.
- 23                NUM\_SUP - The number of Supplemental Channels.
- 24                   If SETPT\_INCL is equal to '1', the mobile station shall include  
25                  this field and set it as follows; otherwise, the mobile station  
26                  shall omit this field.
- 27                  The mobile station shall set this field to the total number of  
28                  the Supplemental Channels reported by this message.
- 29                  The mobile station shall include NUM\_SUP occurrences of the following two fields:
- 30                SCH\_ID - The Supplemental Channel index.
- 31                   The mobile station shall set this field to the Supplemental  
32                  Channel index to indicate the Forward Supplemental Channel  
33                  that is to be reported.
- 34                   FPC\_SCH-
- 35                \_CURR\_SETPT - The supplemental channel outer loop  $E_b/N_t$  setpoint.
- 36                   The mobile station shall set this field to the value of the power  
37                  control outer loop  $E_b/N_t$  setpoint, in units of 0.125 dB,  
38                  currently in use in the Channel specified by SCH\_ID.

## 1    2.7.2.3.2.22 Outer Loop Report Message

2    MSG\_TAG: OLRM

3

| <b>Field</b>        | <b>Length (bits)</b> |
|---------------------|----------------------|
| FCH_INCL            | 1                    |
| FPC_FCH_CURR_SETPT  | 0 or 8               |
| DCCH_INCL           | 1                    |
| FPC_DCCH_CURR_SETPT | 0 or 8               |
| NUM_SUP             | 2                    |

Include NUM\_SUP occurrences of the following fields:

|                    |   |
|--------------------|---|
| SCH_ID             | 1 |
| FPC_SCH_CURR_SETPT | 8 |

4

5    FCH\_INCL

- Fundamental Channel included indicator.

6    The mobile station shall set this field to '1' if  
 7    CURR\_FCH\_SETPT—FPC\_FCH\_CURR\_SETPT is included; |  
 8    otherwise the mobile station shall set this field to '0'. |

9    FPC\_FCH-  
 10   \_CURR\_SETPT

- The outer loop  $E_b/N_t$  setpoint of the Fundamental Channel.

11   If FCH\_INCL is set to '1', the mobile station shall set this field to the value of the  $E_b/N_t$  setpoint, in units of 0.125 dB,  
 12   currently in use in the Fundamental Channel power control  
 13   outer loop estimation; otherwise, the mobile station shall omit  
 14   this field.  
 15

16   DCCH\_INCL

- Dedicated Control Channel included indicator.

17   The mobile station shall set this field to '1' if the  
 18   CURR\_DCCH\_SETPT—FPC\_DCCH\_CURR\_SETPT field is |  
 19   included; otherwise the mobile station shall set this field to '0'. |

20   FPC\_DCCH-  
 21   \_CURR\_SETPT

- The outer loop  $E_b/N_t$  setpoint of the Forward Dedicated Channel.

23   If DCCH\_INCL is set to '1', the mobile station shall set this  
 24   field to the value of the  $E_b/N_t$  setpoint, in units of 0.125 dB,  
 25   currently in use in the Dedicated Channel power control outer  
 26   loop estimation; otherwise, the mobile station shall omit this  
 27   field.  
 27

1           NUM\_SUP    – The number of Supplemental Channels.  
2                         The mobile station shall set this field to the total number of  
3                         the Supplemental Channels reported by this message.

4     The mobile station shall in NUM\_SUP occurrences of the following two fields:

5           SCH\_ID    – The Supplemental Channel index.

6                         The mobile station shall set this field to the Supplemental  
7                         Channel index to indicate the Forward Supplemental Channel  
8                         that to be reported

9           FPC\_SCH-

10          \_CURR\_SETPT – The supplemental outer loop  $E_b/N_t$  setpoint.

11                         The mobile station shall set this field to the value of the power  
12                         control outer loop  $E_b/N_t$  setpoint, in units of 0.125 dB,  
13                         currently in use in the Channel specified by SCH\_ID.

14

- 1    2.7.2.3.2.23 Resource Request Message
- 2    MSG\_TAG: RRM
- 3    There are no Layer 3 fields associated with this message.

- 1    2.7.2.3.2.24 Resource Request Mini Message
- 2    MSG\_TAG: RRMM
- 3    There are no Layer 3 fields associated with this message.

- 1    2.7.2.3.2.25 Extended Release Response Message
- 2    MSG\_TAG: ERM
- 3    There are no Layer 3 fields associated with this message.

- 1    2.7.2.3.2.26 Extended Release Response Mini Message
- 2    MSG\_TAG: ERRMM
- 3    There are no Layer 3 fields associated with this message.

1    2.7.2.3.2.27 Pilot Strength Measurement Mini Message

2    MSG\_TAG: PSMMM

3

| Field          | Length (bits) |
|----------------|---------------|
| PSMM_POS       | 3             |
| PILOT_STRENGTH | 6             |
| RANK           | 3             |

4

5    PSMM\_POS    - *Pilot Strength Measurement Message position.*

6                 The mobile station shall set this field to an index  
 7                 corresponding to the position, within the last sent *Pilot*  
 8                 *Strength Measurement Message* (see 2.7.2.3.2.5) or *Extended*  
 9                 *Pilot Strength Measurement Message* (see 2.7.2.3.2.3<sup>43</sup>), of the  
 10               Active-Set pilot whose strength is being reported. The mobile  
 11               station shall use a value of 0 to report the pilot represented by  
 12               the REF\_PN field in the last sent *Pilot Strength Measurement*  
 13               *Message* or *Extended Pilot Strength Measurement Message*.  
 14               The mobile station shall use a value of n, where n is an  
 15               integer greater than 0, to report the pilot represented by the  
 16               n<sup>th</sup> occurrence of the PILOT\_PN\_PHASE field in the last sent  
 17               *Pilot Strength Measurement Message* or *Extended Pilot Strength*  
 18               *Measurement Message*.

19    PILOT\_STRENGTH    - Pilot strength.

20                 The mobile station shall set this field to

$$\lfloor -2 \times 10 \times \log_{10} PS \rfloor,$$

22                 where PS is the strength of this Active-Set pilot, measured as  
 23                 specified in [2]. If this value is less than 0, the mobile station  
 24               shall set this field to '000000'. If this value is greater than  
 25               '111111', the mobile station shall set this field to '111111'.

26    RANK    - Rank order.

27                 The mobile station shall set this field to the rank order of the  
 28               pilot whose strength is being reported, relative to all other  
 29               pilots in the current Active Set. The mobile station shall use a  
 30               value of 0 to report the strongest pilot in the current Active  
 31               Set.

1    2.7.2.3.2.28 Supplemental Channel Request Mini Message

2    MSG\_TAG: SCRMM

3

| <b>Field</b> | <b>Length (bits)</b> |
|--------------|----------------------|
| REQ_BLOB     | 16                   |

4

5    REQ\_BLOB    -    Reverse Supplemental Channel request block of bytes.

6                 The mobile station shall include information in this field  
7                 containing the parameters that specify the characteristics of  
8                 the Reverse Supplemental Channels request. The mobile  
9                 station shall set this field in accordance with the connected  
10          Service Options.

## 1    2.7.2.3.2.29 Resource Release Request Message

2    MSG\_TAG: RRRM

3

| <b>Order-Specific Field</b> | <b>Length (bits)</b> |
|-----------------------------|----------------------|
| GATING_DISCONNECT_IND       | 1                    |
| CON_REF                     | 0 or 8               |
| PURGE_SERVICE               | 0 or 1               |

4

5

GATING-

6

\_DISCONNECT\_IND

- Reverse pilot gating or service disconnect indicator.  
If the mobile station requests that reverse pilot gating operation to be performed, the mobile station shall set this field to '1'; otherwise (if the mobile station requests that the service option connection specified by CON\_REF to be released), the mobile station shall set this field to '0'.

12

CON\_REF

- Connection reference.  
If the GATING\_DISCONNECT\_IND field is set to '1', the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows:

16

17

18

The mobile station shall set this field to the connection reference corresponding to the service option connection that is requested to be released.

19

PURGE\_SERVICE

- Purge service instance indicator.  
If the GATING\_DISCONNECT\_IND field is set to '1', the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows:  
If the packet data service instance identified by CON\_REF has been inactivated, the mobile station shall set this field to '1'; otherwise, the mobile station shall set this field to '0'.

## 1    2.7.2.3.2.30 Resource Release Request Mini Message

2    MSG\_TAG: RRRMM

3

| <b>Order-Specific Field</b> | <b>Length (bits)</b> |
|-----------------------------|----------------------|
| GATING_DISCONNECT_IND       | 1                    |
| CON_REF                     | 0 or 8               |
| PURGE_SERVICE               | 0 or 1               |

4

- 5                    GATING-
- 6    \_DISCONNECT\_IND   - Reverse pilot gating or service disconnect indicator.  
 7                    If the mobile station requests that reverse pilot gating  
 8                    operation to be performed, the mobile station shall set this  
 9                    field to '1'; otherwise (if the mobile station requests that the  
 10                  service option connection specified by CON\_REF to be  
 11                  released), the mobile station shall set this field to '0'.
- 12                  CON\_REF   - Connection reference.  
 13                  If the GATING\_DISCONNECT\_IND field is set to '1', the mobile  
 14                  station shall omit this field; otherwise, the mobile station shall  
 15                  include this field and set it as follows:  
 16                  The mobile station shall set this field to the connection  
 17                  reference corresponding to the service option connection that  
 18                  is requested to be released.
- 19                  PURGE\_SERVICE   - Purge service instance indicator.  
 20                  If the GATING\_DISCONNECT\_IND field is set to '1', the mobile  
 21                  station shall omit this field; otherwise, the mobile station shall  
 22                  include this field and set it as follows:  
 23                  If the packet data service instance identified by CON\_REF has  
 24                  been inactivated, the mobile station shall set this field to '1';  
 25                  otherwise, the mobile station shall set this field to '0'.

1    2.7.2.3.2.31 User Zone Update Request Message

2    MSG\_TAG: UZURM

3

| Field | Length (bits) |
|-------|---------------|
| UZID  | 16            |

4

5    UZID    -    User Zone identifiers.

6                 The mobile station shall set this field to the UZID<sub>S</sub>.

7

## 1 2.7.2.3.2.32 Enhanced Origination Message

## 2 MSG\_TAG: EOM

| <b>Field</b>          | <b>Length (bits)</b> |
|-----------------------|----------------------|
| TAG                   | 4                    |
| CH_IND                | 3                    |
| SR_ID                 | 3                    |
| GLOBAL_EMERGENCY_CALL | 1                    |
| MS_INIT_POS_LOC_IND   | 0 or 1               |
| ENC_INFO_INCL         | 1                    |
| UI_ENCRYPT_REQ        | 0 or 1               |
| UI_ENCRYPT_SUP        | 0 or 8               |
| SERVICE_OPTION        | 16                   |
| MORE_SO_INFO_INCL     | 1                    |
| NUM_ALT_SO            | 0 or 3               |

NUM\_ALT\_SO occurrences of the following field:

|        |    |
|--------|----|
| ALT_SO | 16 |
|--------|----|

|               |                           |
|---------------|---------------------------|
| SO_BITMAP_IND | 0 or 2                    |
| SO_GROUP_NUM  | 0 or 5                    |
| SO_BITMAP     | 0 or 4 x<br>SO_BITMAP_IND |
| DRS           | 1                         |
| PREV_SID_INCL | 1                         |
| PREV_SID      | 0 or 15                   |
| PREV_NID_INCL | 1                         |
| PREV_NID      | 0 or 16                   |

(continues on next page)

|                  |        |
|------------------|--------|
| PREV_PZID_INCL   | 1      |
| PREV_PZID        | 0 or 8 |
| DIALED_DIGS_INCL | 1      |

1

|             |        |
|-------------|--------|
| DIGIT_MODE  | 0 or 1 |
| NUMBER_TYPE | 0 or 3 |
| NUMBER_PLAN | 0 or 4 |
| NUM_FIELDS  | 0 or 8 |

NUM\_FIELDS occurrences of the following field:

|       |        |
|-------|--------|
| CHARi | 4 or 8 |
|-------|--------|

|          |   |
|----------|---|
| NUM_RECS | 5 |
|----------|---|

NUM\_RECS occurrences of the following three-field records:

|                      |                               |
|----------------------|-------------------------------|
| RECORD_TYPE          | 8                             |
| RECORD_LEN           | 8                             |
| Type-specific fields | $8 \times \text{RECORD\_LEN}$ |

2

3 TAG – Transaction identifier.

4 The mobile station shall set this field to the identifier for this  
5 transaction.

6 CH\_IND – Channel indicator.

7 The mobile station shall set this field as shown in Table  
8 2.7.2.3.2.32-1, to request physical resources.

1

**Table 2.7.2.3.2.32-1. Channel Indicator**

| <b>CH_IND<br/>(binary)</b> | <b>Channel(s) Requested</b>                               |
|----------------------------|-----------------------------------------------------------|
| 000                        | No additional channels requested.                         |
| 001                        | Fundamental Channel.                                      |
| 010                        | Dedicated Control Channel.                                |
| 011                        | Reserved.                                                 |
| 100                        | Continuous Reverse Pilot Channel.                         |
| 101                        | Fundamental Channel and Continuous Reverse Pilot Channel. |
| 110                        | Reserved.                                                 |
| 111                        | Reserved.                                                 |

2

- 3           SR\_ID    – Service reference identifier.  
 4           If the service instance provides a service reference identifier,  
 5           the mobile station shall set this field to the service reference  
 6           identifier specified by the service instance. If the service  
 7           instance does not provide a service reference identifier, the  
 8           mobile station shall set this field to the smallest unused  
 9           service reference identifier value between 1 and 6 (inclusive).

10           GLOBAL-

- 11           \_EMERGENCY\_CALL – Global emergency call indicator.  
 12           The mobile station shall set this field to ‘1’, if the mobile  
 13           station recognizes that this is an emergency call; otherwise,  
 14           the mobile station shall set this field to ‘0’.

15           MS\_INIT\_POS\_LOC\_IND – Mobile Initiated Position Location Session indicator.

16           If the GLOBAL\_EMERGENCY\_CALL field is set to ‘0’, the  
 17           mobile station shall omit this field; otherwise, the mobile  
 18           station shall include this field and shall set it as follows:

19           The mobile station shall set this field to ‘1’ if MS\_INIT\_POS\_LOC\_SUP\_IND<sub>S</sub> is equal to ‘1’ and if the mobile  
 20           station is to initiate a position location session associated with  
 21           this emergency call; otherwise, the mobile station shall set  
 22           this field to ‘0’.

23

- 1           ENC\_INFO\_INCL   – Encryption fields included.  
 2  
 3  
 4  
 5  
 6  
 7  
 8  
 9
- 10          UI\_ENCRYPT\_REQ   – Request for user information encryption on the traffic channel indicator.  
 11  
 12  
 13  
 14  
 15  
 16
- 17          UI\_ENCRYPT\_SUP   – User information Encryption supported indicator.  
 18  
 19  
 20  
 21  
 22
- 23  
 24
- 25  
 26  
 27  
 28
- 29  
 30
- 31          SERVICE\_OPTION   – Requested service option for this origination.  
 32  
 33
- 34          MORE\_SO\_INFO\_INCL   – More service option information included.  
 35  
 36  
 37
- 38  
 39  
 40  
 41  
 42  
 43
- The mobile station shall set this field to ‘1’ if the encryption related fields are included; otherwise the mobile station shall set this field to ‘0’. The mobile station shall set this field to ‘1’ if it is unable to determine the base station support for encryption. The mobile station shall set this field to ‘0’ if the base station does not support encryption or the mobile station does not support any of the encryption modes supported by the base station.
- If ENC\_INFO\_INCL is set to ‘1’, the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile station shall set this field to ‘1’ to request user information encryption, and to ‘0’ to request no user information encryption.
- If ENC\_INFO\_INCL is set to ‘1’, the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile station shall set this field to indicate the supported user information encryption algorithms.
- This field consists of the subfields shown in Table 2.7.1.3.2.4-9.
- The mobile station shall set each subfield to ‘1’ if the corresponding user information encryption algorithm is supported by the mobile station; otherwise, the mobile station shall set the subfield to ‘0’.
- The mobile station shall set the RESERVED subfield to ‘0000000’.
- The mobile station shall set this field to the value specified in [30], corresponding to the requested service option.
- If MAX\_NUM\_ALT\_SO<sub>s</sub> is equal to ‘000’, the mobile station shall set this field to ‘0’; otherwise, the mobile station shall set this field as follows:
- If any alternate service option number or/and service option bitmap is to be included in this message, the mobile station shall set this field to ‘1’, otherwise, the mobile station shall set this field to ‘0’. In other words, MORE\_SO\_INFO\_INCL is set to ‘1’, if NUM\_ALT\_SO is included and not set to ‘000’ or/and SO\_BITAMP\_IND is included and not set to ‘00’.

1           NUM\_ALT\_SO   – Number of alternative service options.

2                             If MORE\_SO\_INFO\_INCL is set to ‘0’, the mobile station shall  
 3                             omit this field; otherwise, the mobile station shall set this field  
 4                             to the number of supported alternative service options which  
 5                             either have no service option group number assigned or do not  
 6                             belong to the same service option group whose bitmap is  
 7                             include in the message.

8           The mobile station shall include NUM\_ALT\_SO occurrences of the following field:

9           ALT\_SO   – Alternative service option.

10                             The mobile station shall set this field to the value specified in  
 11                             [30], corresponding to the alternative service option supported  
 12                             by the mobile station. These alternate service options are  
 13                             either have not service option group number assigned or do  
 14                             not belong to the same service option group whose bitmap is  
 15                             included in this message.

16           SO\_BITMAP\_IND   – SO bitmap indicator.

17                             If MORE\_SO\_INFO\_INCL is set to ‘0’, the mobile station shall  
 18                             omit this field; otherwise, the mobile station shall include this  
 19                             field and set it as defined in Table 2.7.1.3.2.4-10.

20           SO\_GROUP\_NUM   – Service option group number.

21                             If the field SO\_BITMAP\_IND is included and not set to ‘00’, the  
 22                             mobile station shall include this field and set this field to the  
 23                             service option group number of which the bitmap is to be  
 24                             included; otherwise, the mobile station shall omit this field.

25           SO\_BITMAP   – Service option bitmap.

26                             If the field SO\_BITMAP\_IND is included and not set to ‘00’, the  
 27                             mobile station shall include the bitmap of size  $4 \times$   
 28                             SO\_BITMAP\_IND bits of the service option group number  
 29                             (SO\_GROUP\_NUM); otherwise, the mobile station shall omit  
 30                             this field;

31                             When the service option bitmap is included, if there are more  
 32                             than  $(4 \times \text{SO_BITMAP\_IND})$  service options defined for the  
 33                             service option group, the mobile station shall include the  
 34                             bitmap containing the least significant bits  $(4 \times$   
 35                             SO\_BITMAP\_IND) of the service option group.

36                             The mobile station shall set abit in this bitmap to ‘1’, if the  
 37                             mobile station is capable of supporting the SO for which this  
 38                             bit represents; otherwise, the mobile station shall set a bit in  
 39                             this bitmap to ‘0’.

40           DRS   – Data ready to send indicator.

The mobile station shall set this field to '1' if it is requesting a packet data service option and it has data to send; otherwise, the mobile station shall set this field to '0'.

- 4 PREV\_SID\_INCL - Previous System Identification (SID) included indicator.  
5  
6 The mobile station shall set this field to '1' if the mobile  
7 station determines that the SID has been changed after a  
8 packet data dormant handoff and the PREV\_SID field is  
9 included in this message; otherwise, the mobile station shall  
set this field to '0'.  
10 PREV\_SID - Previous System Identification.  
11 If PREV\_SID\_INCL is set to '0', the mobile station shall omit  
12 this field; otherwise, the mobile station shall include this field  
13 and set it as follows:  
14 If the mobile station determines SID has been changed after a  
15 packet data dormant handoff, the mobile station shall set this  
16 field to the previous SID.  
17 PREV\_NID\_INCL - Previous Network Identification (NID) included indicator.  
18 The mobile station shall set this field to '1' if the mobile  
19 station determines that NID has been changed after a packet  
20 data dormant handoff and the PREV\_NID field is included in  
21 this message; otherwise, the mobile station shall set this field  
22 to '0'.  
23 PREV\_NID - Previous Network Identification.  
24 If PREV\_NID\_INCL is set to '0', the mobile station shall omit  
25 this field; otherwise, the mobile station shall include this field  
26 and set it as follows:  
27 If the mobile station determines NID has been changed after a  
28 packet data dormant handoff, the mobile station shall set this  
29 field to the previous NID.  
30 PREV\_PZID\_INCL - Previous Packet Zone ID (PZID) included indicator.  
31 The mobile station shall set this field to '1' if the mobile  
32 station determines that the Packet Zone ID has been changed  
33 after a packet data dormant handoff and the PREV\_PZID field  
34 is included in this message; otherwise, the mobile station shall  
35 omit this field.  
36 PREV\_PZID - Previous Packet Zone ID.  
37 If PREV\_PZID\_INCL is set to '0', the mobile station shall omit  
38 this field; otherwise, the mobile station shall include this field  
39 and set it as follows:  
40 If the mobile station determines PZID has been changed after  
41 a packet data dormant handoff, the mobile station shall set  
42 this field to the previous PZID.  
43 DIALED\_DIGS\_INCL - Dialed digits included indicator.

1                   The mobile station shall set this field to ‘1’ if the dialed digits  
 2                   related fields are included in this message; otherwise, the  
 3                   mobile station shall set this field to ‘0’.

4           DIGIT\_MODE – Digit mode indicator.

5                   If the DIALED\_DIGS\_INCL field is set to ‘0’, the mobile station  
 6                   shall omit this field; otherwise, the mobile station shall  
 7                   include this field and shall set it as follows:

8                   This field indicates whether the dialed digits are 4-bit DTMF  
 9                   codes or 8-bit ASCII codes using a specified numbering plan.

10                  To originate the call using the binary representation of DTMF  
 11                  digits, the mobile station shall set this field to ‘0’. To originate  
 12                  the call using ASCII characters, the mobile station shall set  
 13                  this field to ‘1’.

14           NUMBER\_TYPE – Type of number.

15                  If the DIALED\_DIGS\_INCL field is set to ‘0’ or if the  
 16                  DIGIT\_MODE field is set to ‘0’, the mobile station shall omit  
 17                  this field; otherwise, the mobile station shall include this field  
 18                  and shall set it as follows:

19                  The mobile station shall set this field to the NUMBER\_TYPE  
 20                  value shown in Table 2.7.1.3.2.4-2 corresponding to the type  
 21                  of the number as defined in [7], Section 4.5.9.

22           NUMBER\_PLAN – Numbering plan.

23                  If the DIALED\_DIGS\_INCL field is set to ‘0’ or if the  
 24                  DIGIT\_MODE field is set to ‘0’, the mobile station shall omit  
 25                  this field; otherwise, the mobile station shall include this field  
 26                  and shall set it as follows:

27                  The mobile station shall set this field to the NUMBER\_PLAN  
 28                  value shown in Table 2.7.1.3.2.4-3 corresponding to the  
 29                  requested numbering plan as defined in [7], Section 4.5.9.

30           NUM\_FIELDS – Number of dialed digits in this message.

31                  If the DIALED\_DIGS\_INCL field is set to ‘0’, the mobile station  
 32                  shall omit this field; otherwise, the mobile station shall  
 33                  include this field and shall set it as follows:

34                  The mobile station shall set this field to the number of dialed  
 35                  digits included in this message.

1    The mobile station shall include NUM\_FIELDS occurrences of the following field:

2              CHARi    – A dialed digit or character.

3              If the DIGIT\_MODE field is set to '0', the mobile station shall  
 4              set each occurrence of this field to the code value shown in  
 5              Table 2.7.1.3.2.4-4 corresponding to the dialed digit. If the  
 6              DIGIT\_MODE field is set to '1', the mobile station shall set  
 7              each occurrence of this field to the ASCII representation  
 8              corresponding to the dialed digit, as specified in [9], with the  
 9              most significant bit set to '0'.

10          NUM\_RECS    – Number of records.

11          The mobile station shall set this field to the number of  
 12              information records included with this message.

13

14          The mobile station shall include NUM\_RECS occurrences of the following three-field record.

15              RECORD\_TYPE    – Information record type.

16              The mobile station shall set this field to the record type value  
 17              shown in Table 2.7.4-1.

18              The mobile station shall not include the record type for QoS  
 19              Parameters information record if MOB\_QOS<sub>S</sub> is equal to '0'.

20              RECORD\_LEN    – Information record length.

21              The mobile station shall set this field to the number of octets  
 22              in the type-specific fields included in this record.

23          Type-specific fields    – Type-specific fields.

24          The mobile station shall include type-specific fields as  
 25              specified in 2.7.4.

1    2.7.2.3.2.33 Extended Flash With Information Message

2    MSG\_TAG: EFWIM

3

| <b>Field</b> | <b>Length (bits)</b> |
|--------------|----------------------|
| CON_REF_INCL | 1                    |
| CON_REF      | 0 or 8               |
| NUM_REC      | 4                    |

NUM\_REC occurrences of the following three-field record:

|                      |                               |
|----------------------|-------------------------------|
| RECORD_TYPE          | 8                             |
| RECORD_LEN           | 8                             |
| Type-specific fields | $8 \times \text{RECORD\_LEN}$ |

4

5    CON\_REF\_INCL    – Connection reference included indicator.

6                     The mobile station shall set this field to '1' if the connection  
7                     reference field is included in this message; otherwise, it shall  
8                     set this field to '0'.

9    CON\_REF    – Connection reference.

10                   If the CON\_REF\_INCL field is set to '0', the mobile station  
11                   shall omit this field; otherwise, the mobile station shall  
12                   include this field and shall set it to the value of the connection  
13                   reference assigned to the service option connection of the call,  
14                   to which this message corresponds.

15    NUM\_REC    – Number of records.

16                   The mobile station shall set this field to the number of  
17                   information records included with this message.

18    The mobile station shall include NUM\_REC occurrence of the following three-field record:

- 1            RECORD\_TYPE    – Information record type.
- 2                         The mobile station shall set this field to the record type code  
3                         shown in Table 2.7.4-1 corresponding to the type of this  
4                         information record.
- 5            RECORD\_LEN    – Information record length.
- 6                         The mobile station shall set this field to the number of octets  
7                         in the type-specific fields of this record.
- 8        Type-specific fields    – Type-specific fields.  
9                         The mobile station shall set these fields as specified in 2.7.4  
10                         for this type of information record.

## 1    2.7.2.3.2.34 Extended Pilot Strength Measurement Message

2    MSG\_TAG: EPSMM

3

| <b>Field</b>         | <b>Length (bits)</b>              |
|----------------------|-----------------------------------|
| REF_PN               | 9                                 |
| PILOT_STRENGTH       | 6                                 |
| KEEP                 | 1                                 |
| REF_PILOT_REC_INCL   | 1                                 |
| REF_PILOT_REC_TYPE   | 0 or 3                            |
| REF_RECORD_LEN       | 0 or 3                            |
| Type-specific fields | 0 or $8 \times$<br>REF_RECORD_LEN |
| SF_RX_PWR            | 5                                 |
| NUM_PILOTS           | 4                                 |

NUM\_PILOTS occurrences of the following record:

|                      |                            |
|----------------------|----------------------------|
| PILOT_PN_PHASE       | 15                         |
| PILOT_STRENGTH       | 6                          |
| KEEP                 | 1                          |
| PILOT_REC_INCL       | 1                          |
| PILOT_REC_TYPE       | 0 or 3                     |
| RECORD_LEN           | 0 or 3                     |
| Type-specific fields | 0 or $8 \times$ RECORD_LEN |

4

5    REF\_PN    -    Time reference PN sequence offset.

6    The mobile station shall set this field to the PN sequence offset  
7    of the pilot used by the mobile station to derive its time  
8    reference, relative to the zero offset pilot PN sequence in units  
9    of 64 PN chips.

10    PILOT\_STRENGTH    -    Pilot strength.

11    The mobile station shall set this field to

12     $\lfloor -2 \times 10 \log_{10} PS \rfloor,$

1 where PS is the strength of the pilot used by the mobile  
 2 station to derive its time reference (see [2]), measured as  
 3 specified in 2.6.6.2.2. If this value ( $-2 \times 10 \log_{10} PS$ ) is less  
 4 than 0, the mobile station shall set this field to '000000'. If  
 5 this value is greater than '111111', the mobile station shall set  
 6 this field to '111111'.

- 7           KEEP    - Keep pilot indicator.  
 8                   If the handoff drop timer (see 2.6.6.2.3) corresponding to the  
 9                   pilot used by the mobile station to derive its time reference  
 10                  (see 2.1.5 of [2]) has expired, the mobile station shall set this  
 11                 field to '0'; otherwise, the mobile station shall set this field to  
 12                 '1'.  
 13           REF\_PILOT\_REC\_INCL - Reference pilot information included indicator.  
 14                   The mobile station shall set this field to '1' if additional  
 15                   reference pilot information listed in the  
 16                   REF\_PILOT\_REC\_TYPE and REF\_RECORD\_LEN fields are  
 17                   included. The mobile station shall set this field to '0' if the  
 18                   corresponding pilot is the common pilot and there is no  
 19                   additional pilot information included.  
 20           REF\_PILOT\_REC\_TYPE - Reference pilot record type.  
 21                   If REF\_PILOT\_REC\_INCL is set to '1', the mobile station shall  
 22                   set this field to the REF\_PILOT\_REC\_TYPE value shown in  
 23                   Table 2.7.2.3.2.34-1 corresponding to the type of Pilot Record  
 24                   specified by this record.

26                   **Table 2.7.2.3.2.34-1. Pilot Record Types**

| Description                                                        | <b>REF_PILOT_REC_TYPE<br/>PILOT_REC_TYPE<br/>(binary)</b> |
|--------------------------------------------------------------------|-----------------------------------------------------------|
| Auxiliary Pilot                                                    | 000                                                       |
| All other REF_PILOT_REC_TYPE or PILOT_REC_TYPE values are reserved |                                                           |

27  
 28                   If REF\_PILOT\_REC\_INCL is set to '0', the mobile station shall  
 29                   omit this field.

- 30           REF\_RECORD\_LEN - Reference pilot record length.  
 31                   If REF\_PILOT\_REC\_INCL is set to '1', the mobile station shall  
 32                   set this field to the number of octets in the type-specific fields  
 33                   of this pilot record.  
 34                   If REF\_PILOT\_REC\_INCL is set to '0', the mobile station shall  
 35                   omit this field.  
 36           Type-specific fields - Pilot record type-specific fields.

If REF\_PILOT\_REC\_INCL is set to ‘1’, the mobile station shall include type-specific fields based on the REF\_PILOT\_REC\_TYPE of this pilot record.

If REF\_PILOT\_REC\_INCL is set to ‘0’, the mobile station shall omit this field.

If REF\_PILOT\_REC\_TYPE is equal to ‘000’, the mobile station shall include the following fields:

| Field        | Length (bits)      |
|--------------|--------------------|
| QOF          | 2                  |
| WALSH_LENGTH | 3                  |
| PILOT_WALSH  | (WALSH_LENGTH + 6) |
| RESERVED     | 0 to 7 (as needed) |

QOF - Quasi-orthogonal function index.

The mobile station shall set this field to the index of the Quasi-orthogonal function of the corresponding Auxiliary Pilot.

WALSH\_LENGTH - Length of the Walsh code for the reference pilot.

The mobile station shall set this field to the WALSH\_LENGTH value shown in Table 2.7.2.3.2.34-2 corresponding to the length of the Walsh code for the pilot that is used as the Auxiliary Pilot.

**Table 2.7.2.3.2.34-2. Walsh Code Length**

| Length of the WALSH_LENGTH | Walsh Code (binary) |
|----------------------------|---------------------|
| 64                         | ‘000’               |
| 128                        | ‘001’               |
| 256                        | ‘010’               |
| 512                        | ‘011’               |
| Reserved                   | ‘100’ – ‘111’       |

PILOT\_WALSH - Walsh code for the Auxiliary Pilot used by the mobile station to derive its time reference.

The mobile station shall set this field to the Walsh code corresponding to the Auxiliary Pilot.

- 1           RESERVED    -    Reserved bits.  
 2                         The base station shall set all the bits of this field to '0' to make  
 3                         the entire record octet-aligned.
- 4  
 5           SF\_RX\_PWR    -    The received power spectral density of the Serving Frequency.  
 6                         The mobile station shall set this field to  
 7                          $\lceil (10 \times \log_{10}(\text{spec\_density}) + 120) / 2 \rceil$   
 8                         where *spec\_density* is the mobile station received power  
 9                         spectral density of the Serving Frequency, in mW/1.23MHz,  
 10                        averaged over the last N<sub>12m</sub> frames (see 2.6.6.2.5.1).  
 11                        If this value is less than 0, the mobile station shall set this  
 12                        field to '00000'.  
 13           NUM\_PILOTS    -    Number of pilots reported.  
 14                         The mobile station shall set this field to the number of pilots  
 15                         being reported other than the reference pilot.
- 16           The mobile station shall include NUM\_PILOTS occurrences of the following record: one  
 17           occurrence for each pilot in the Active Set, for each pilot in the Candidate Set whose  
 18           strength exceeds T\_ADD, and for each pilot in the Candidate Set whose strength satisfies  
 19           the following inequality:

$$10 \times \log_{10} \text{PS} > \frac{\text{SOFT\_SLOPE}_s}{8} \times 10 \times \log_{10} \sum_{i \in A} \text{PS}_i + \frac{\text{ADD\_INTERCEPT}_s}{2}$$

- 21           where the summation is performed over all pilots currently in the Active Set. The mobile  
 22           station shall not include these fields for the pilot identified by the REF\_PN field.  
 23           The mobile station shall order any occurrences of the following record which correspond to  
 24           pilots in the Active Set such that they occur before any occurrences of the following record  
 25           which correspond to pilots in the Candidate Set.

- 26           PILOT\_PN\_PHASE    -    Pilot measured phase.  
 27                         The mobile station shall set this field to the phase of the pilot  
 28                         PN sequence relative to the zero offset pilot PN sequence of  
 29                         this pilot, in units of one PN chip, as specified in 2.6.6.2.4.  
 30           PILOT\_STRENGTH    -    Pilot strength.  
 31                         The mobile station shall set this field to  
 32                          $\lfloor -2 \times 10 \log_{10} \text{PS} \rfloor$ ,  
 33                         where PS is the strength of this pilot, measured as specified in  
 34                         2.6.6.2.2. If this value ( $\lfloor -2 \times 10 \log_{10} \text{PS} \rfloor$ ) is less than 0, the  
 35                         mobile station shall set this field to '000000'. If this value is  
 36                         greater than '111111', the mobile station shall set this field to  
 37                         '111111'.

- 1                   KEEP     -     Keep pilot indicator.  
 2                   If the handoff drop timer (see 2.6.6.2.3) corresponding to this  
 3                   pilot has expired, the mobile station shall set this field to '0';  
 4                   otherwise, the mobile station shall set this field to '1'.  
 5       PILOT\_REC\_INCL     -     Additional pilot information included indicator.  
 6                   The mobile station shall set this field to '1' if additional pilot  
 7                   information listed in the PILOT\_REC\_TYPE and RECORD\_LEN  
 8                   fields are included. The mobile station shall set this field to '0'  
 9                   if the corresponding pilot is the common pilot and there is no  
 10                  additional pilot information included.  
 11      PILOT\_REC\_TYPE -     Reference pilot record type.  
 12                   If PILOT\_REC\_INCL is set to '1', the mobile station shall set  
 13                   this field to the PILOT\_REC\_TYPE value shown in Table  
 14                  2.7.2.3.2.3~~43~~-1 corresponding to the type of Pilot Record  
 15                  specified by this record.  
 16                   If PILOT\_REC\_INCL is set to '0', the mobile station shall omit  
 17                  this field.  
 18      RECORD\_LEN     -     Pilot record length.  
 19                   If PILOT\_REC\_INCL is set to '1', the mobile station shall set  
 20                   this field to the number of octets in the type-specific fields of  
 21                  this pilot record.  
 22                   If PILOT\_REC\_INCL is set to '0', the mobile station shall omit  
 23                  this field.  
 24      Type-specific fields     -     Pilot record type-specific fields.  
 25                   If PILOT\_REC\_INCL is set to '1', the mobile station shall  
 26                   include type-specific fields based on the PILOT\_REC\_TYPE of  
 27                  this pilot record as described in 3.7.6.1.  
 28                   If PILOT\_REC\_INCL is set to '0', the mobile station shall omit  
 29                  this field.

## 1    2.7.2.3.2.35 Extended Handoff Completion Message

2    MSG\_TAG: EHOCM

3

| <b>Field</b> | <b>Length (bits)</b> |
|--------------|----------------------|
| LAST_HDM_SEQ | 2                    |
| NUM_PILOTS   | 4                    |

NUM\_PILOTS occurrences of the following record:

|                      |                                    |
|----------------------|------------------------------------|
| PILOT_PN             | 9                                  |
| PILOT_REC_INCL       | 1                                  |
| PILOT_REC_TYPE       | 0 or 3                             |
| RECORD_LEN           | 0 or 3                             |
| Type-specific fields | 0 or $8 \times \text{RECORD\_LEN}$ |

4

5    LAST\_HDM\_SEQ    -    *Extended Handoff Direction Message, General Handoff  
6    Direction Message, or Universal Handoff Direction Message  
7    sequence number.*8    The mobile station shall set this field to the value of the  
9    HDM\_SEQ field from the *Extended Handoff Direction Message,*  
10   *General Handoff Direction Message,* or the *Universal Handoff  
11   Direction Message* that determined the current Active Set.

12   NUM\_PILOTS    -    Number of pilots reported.

13   The mobile station shall set this field to the number of pilots  
14   in the current Active Set.15   The mobile station shall include NUM\_PILOTS occurrences of the following record: one  
16   occurrence for each pilot in the Active Set. If the Active Set contains more than one pilot,  
17   the mobile station shall include the pilot information in the same order as in the *Extended  
18   Handoff Direction Message, the General Handoff Direction Message, or the Universal Handoff  
19   Direction Message* that determined the current Active Set.

20   PILOT\_PN    -    Pilot PN sequence offset.

21   The mobile station shall set this field to the pilot PN sequence  
22   offset, relative to the zero offset pilot PN sequence in units of  
23   64 PN chips, for this pilot.

24   PILOT\_REC\_INCL    -    Additional pilot information included indicator.

25   The mobile station shall set this field to '1' if additional pilot  
26   information listed in the PILOT\_REC\_TYPE and RECORD\_LEN  
27   fields are included. The mobile station shall set this field to '0'  
28   if the corresponding pilot is the common pilot and there is no  
29   additional pilot information included.

30   PILOT\_REC\_TYPE    -    Reference pilot record type.

1           If PILOT\_REC\_INCL is set to '0', the mobile station shall omit  
2           this field; otherwise, the mobile station shall set this field to  
3           the PILOT\_REC\_TYPE value shown in Table 2.7.2.3.2.34-1  
4           corresponding to the type of Pilot Record specified by this  
5           record.

6       RECORD\_LEN   - Pilot record length.  
7           If PILOT\_REC\_INCL is set to '0', the mobile station shall omit  
8           this field; otherwise, the mobile station shall set this field to  
9           the number of octets in the type-specific fields of this pilot  
10          record.

11      Type-specific fields   - Pilot record type-specific fields.  
12           If PILOT\_REC\_INCL is set to '0', the mobile station shall omit  
13           this field; otherwise, the mobile station shall include type-  
14           specific fields based on the PILOT\_REC\_TYPE of this pilot  
15           record as described in 2.7.2.3.2.34.

## 1 2.7.2.3.2.36 Security Mode Request Message

2 MSG\_TAG: SMRM

3

| Order-Specific Field | Length (bits) |
|----------------------|---------------|
| UI_ENC_INCL          | 1             |
| UI_ENCRYPT_SUP       | 0 or 8        |
| NUM_RECS             | 0 or 3        |

NUM\_RECS + 1 occurrences of the following two field record

|                |        |
|----------------|--------|
| CON_REF        | 0 or 8 |
| UI_ENCRYPT_REQ | 0 or 1 |

|                          |                |
|--------------------------|----------------|
| SIG_ENC_INCL             | 1              |
| SIG_ENCRYPT_SUP          | 0 or 8         |
| <u>D_SIG_ENCRYPT_REQ</u> | 0 or 1         |
| <u>ENC SEQ H INCL</u>    | <u>1</u>       |
| <u>ENC SEQ H</u>         | <u>0 or 24</u> |
| <u>ENC SEQ H SIG</u>     | <u>0 or 8</u>  |

4

5

- UI\_ENC\_INCL - User information encryption fields included.

6

7

8

9

The mobile station shall set this field to '1' if the user information encryption related fields are included in this message; otherwise, the mobile station shall set this field to '0'.

10

- UI\_ENCRYPT\_SUP - User information
- eE
- ncryption supported indicator.

11

12

13

14

15

If UI\_ENC\_INCL is equal to '1', the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile station shall set this field to indicate the supported user information encryption algorithms.

1           This field consists of the subfields shown in Table 2.7.1.3.2.4-  
 2           9.

3           The mobile station shall set each subfield to ‘1’ if the  
 4           corresponding user information encryption algorithm is  
 5           supported by the mobile station; otherwise, the mobile station  
 6           shall set the subfield to ‘0’.

7           The mobile station shall set the RESERVED subfield to  
 8           ‘00000000’

9           NUM\_REC    – Number of user information encryption records.

10          If UI\_ENC\_INCL is equal to ‘1’, the mobile station shall include  
 11           this field; otherwise, the mobile station shall omit this field. If  
 12           this field is included, the mobile station shall set this field to  
 13           number of user information encryption records included in  
 14           this message minus 1.

15          The mobile station shall include NUM\_REC + 1 occurrences of the following two field record

16           CON\_REF    – Connection reference corresponding to the service instance  
 17           requesting for encryption.

18          If UI\_ENC\_INCL is equal to ‘1’, the mobile station shall include  
 19           this field; otherwise, the mobile station shall omit this field. If  
 20           this field is included, the mobile station shall set this field to  
 21           the connection reference of the service option connection  
 22           corresponding to this user information encryption request  
 23           record.

24           UI\_ENCRYPT\_REQ    – Request for user information encryption on the traffic channel  
 25           indicator.

26          The mobile station shall set this field to ‘1’ to request user  
 27           information encryption for the user information corresponding  
 28           to the service option connection identified by CON\_REF;  
 29           otherwise, the mobile station shall set this field to ‘0’.

30           SIG\_ENC\_INCL    – Signaling encryption fields included.

31          The mobile station shall set this field to ‘1’ if the following two  
 32           fields related to signaling encryption fields are included in this  
 33           message. Otherwise, the mobile station shall set this field to  
 34           ‘0’.

35           SIG\_ENCRYPT\_SUP    – Signaling eEncryption supported indicator.

36          If SIG\_ENC\_INCL is equal to ‘1’, the mobile station shall  
 37           include this field; otherwise, the mobile station shall omit this  
 38           field. If this field is included, the mobile shall set this field to  
 39           indicate the supported signaling encryption algorithms  
 40           supported by the mobile station.

1           This field consists of the subfields shown in Table 2.7.1.3.2.1-  
 2           5.

3           If this field is included, the mobile station shall set the  
 4           subfields as follows:

5           The mobile station shall set the CMEA subfield to '1'.

6           The mobile station shall set each other subfield to '1' if the  
 7           corresponding signaling encryption algorithm is supported by  
 8           the mobile station; otherwise, the mobile station shall set the  
 9           subfield to '0'.

10          The mobile station shall set the RESERVED subfield to  
 11          '000000'. |

12          D\_SIG\_ENCRYPT\_REQ - Dedicated channel sSignaling Message-encryption request  
 13          indicator.

14          If SIG\_ENC\_INCL is equal to '1', the mobile station shall  
 15          include this field; otherwise, the mobile station shall omit this  
 16          field. If included the mobile station shall set this field to '1' to  
 17          request signaling encryption to be turned on for signaling  
 18          messages sent on f-dsch,and r-dsch,f esch,and r esch, and  
 19          to '0' to request signaling encryption to be turned off for  
 20          signaling messages sent on f-dsch,and r-dsch,f esch,and r  
 21          esch.

22          ENC SEQ H INCL - The 24 MSB of the EXT ENC SEQ included.

23          The mobile station shall set this field to '1' if ENC SEQ H is  
 24          included in this message; otherwise, the mobile station shall  
 25          set this field to '0'.

26          ENC SEQ H - The 24 MSB of the EXT ENC SEQ

27          If ENC SEQ H INCL is set to '1', the mobile station shall  
 28          include this field; otherwise, the mobile station shall omit this  
 29          field. If this field is included, the mobile station shall set this  
 30          field to the 24 most significant bits of the EXT ENC SEQ to be  
 31          used as the initial value of crypto sync for both forward and  
 32          reverse link encryptions.

33          ENC SEQ H SIG - The signature of ENC SEQ H

34          If ENC SEQ H is included, the mobile station shall include  
 35          this field; otherwise, the mobile station shall omit this field. If  
 36          this field is included, the mobile station shall set this field to  
 37          the digital signature of the ENC SEQ H computed as  
 38          described in 2.3.12.4.5.

39

40

## 1    2.7.2.3.2.37 Call Cancel Message

2    MSG\_TAG: CLCM

3

| Order-Specific Field | Length (bits) |
|----------------------|---------------|
| TAG                  | 4             |

4

5    TAG    -    Transaction identifier.

6    The mobile station shall set this field to the TAG value in the  
7    *Enhanced Origination Message* sent to originate this call.

## 1    2.7.2.3.2.38 Device Information Message

2    MSG\_TAG: DIM

3

| <b>Field</b>     | <b>Length (bits)</b> |
|------------------|----------------------|
| WLL_DEVICE_TYPE  | 3                    |
| NUM_INFO_RECORDS | 5                    |

NUM\_INFO\_RECORDS occurrences of the following record:

|                      |                               |
|----------------------|-------------------------------|
| RECORD_TYPE          | 8                             |
| RECORD_LEN           | 8                             |
| Type-specific fields | $8 \times \text{RECORD\_LEN}$ |

4

- 5    WLL\_DEVICE\_TYPE    –    WLL device type indicator.  
 6                         The mobile station shall set this field to the  
 7                         WLL\_DEVICE\_TYPE value shown in Table 2.7.1.3.2.1-3  
 8                         corresponding to the mobile station device type.
- 9    NUM\_INFO\_RECORDS    –    Number of information records included.  
 10                        The mobile station shall set this field to the number of  
 11                        information records which are included.

12    The mobile station shall include one occurrence of the following fields for each information  
 13    record which is included:

- 14    RECORD\_TYPE    –    Information record type.  
 15                        The mobile station shall set this field to the record type code  
 16                        shown in Table 2.7.4-1 corresponding to the type of this  
 17                        information record.
- 18    RECORD\_LEN    –    Information record length.  
 19                        The mobile station shall set this field to the number of octets  
 20                        in the type-specific fields of this record.
- 21    Type-specific fields    –    Type-specific fields.  
 22                        The mobile station shall set these fields as specified in 2.7.4  
 23                        for this type of information record.

1      [2.7.2.3.2.39 Base Station Status Request Message](#)

2      [MSG TAG: BSSREQM](#)

| <u>Field</u>                         | <u>Length (bits)</u>     |
|--------------------------------------|--------------------------|
| <a href="#">QUAL_INFO_TYPE</a>       | <u>8</u>                 |
| <a href="#">QUAL_INFO_LEN</a>        | <u>3</u>                 |
| <a href="#">Type-specific fields</a> | <u>8 × QUAL_INFO_LEN</u> |
| <a href="#">NUM_RECORD</a>           | <u>4</u>                 |

[NUM\\_RECORD occurrences of the following variable length record:](#)

|                                             |                          |
|---------------------------------------------|--------------------------|
| <a href="#">RECORD_TYPE</a>                 | <u>8</u>                 |
| <a href="#">RECORD_LENGTH</a>               | <u>8</u>                 |
| <a href="#">Record type specific fields</a> | <u>variable</u>          |
| <a href="#">RESERVED</a>                    | <u>0-7 (as required)</u> |

3      [QUAL\\_INFO\\_TYPE](#) - Qualification information type.

4      The mobile station shall set this field to the value shown in  
 5      Table 3.7.2.3.2.15-1 to show the inclusion of qualification  
 6      information in the type-specific fields.

7      [QUAL\\_INFO\\_LEN](#) - Qualification information length.

8      The mobile station shall set this field to the number of octets  
 9      included in the type-specific fields of the qualification  
 10     information.

11     [Type-specific fields](#) - Type-specific fields.

12     The mobile station shall set these fields to the qualification  
 13     information according to the QUAL\_INFO\_TYPE field.

14     If QUAL\_INFO\_TYPE is equal to '00000000', the type-specific  
 15     fields are omitted.

16     If QUAL\_INFO\_TYPE is equal to '00000001', the mobile station  
 17     shall use the following fixed-length format for the type-specific  
 18     fields:

| <u>Type-specific Field</u> | <u>Length (bits)</u> |
|----------------------------|----------------------|
| <a href="#">BAND_CLASS</a> | <u>5</u>             |
| <a href="#">RESERVED</a>   | <u>3</u>             |

19  
 20     If QUAL\_INFO\_TYPE is equal to '00000010', the mobile station  
 21     shall use the following fixed-length format for the type-specific  
 22     fields:

| Type-specific Field | Length (bits) |
|---------------------|---------------|
| BAND CLASS          | 5             |
| OP MODE             | 8             |
| RESERVED            | 3             |

- 1  
2     BAND CLASS - Band class.  
3                 The mobile station shall set this field to the CDMA band class,  
4                 as specified in [30].  
5     OP MODE - Operating mode.  
6                 The mobile station shall set this field as shown in  
7                 Table 3.7.2.3.2.15-3 to specify the operating mode  
8                 qualification information.  
9     RESERVED - Reserved bits.  
10                The mobile station shall set this field to '000'.  
11     NUM RECORD - Number of requested record fields in this message.  
12                The mobile station shall set this field to the number of  
13                occurrences of RECORD TYPE field in this message.  
14     The mobile station shall include NUM RECORD occurrences of the following variable-length  
15     record, one for each information record that is requested:  
16     RECORD TYPE - Information record type.  
17                The mobile station shall set this field to the record type value  
18                shown in Table 2.7.2.3.2.39-1 corresponding to the  
19                information record requested.
- 20     **Table 2.7.2.3.2.39-1. Base Station Status Request Information Record Types**
- | Information Record Requested | Record Type           |
|------------------------------|-----------------------|
| Pilot Information            | 00000000              |
| Reserved                     | 00000001-<br>11111111 |
- 21     RECORD LENGTH - Information record length.  
22                The mobile station shall set this field to the length, in octets,  
23                of the record type specific fields included in this record.  
24     Record type specific  
25     fields - Record type specific fields  
26                The mobile station shall set this field to the type specific fields  
27                corresponding to this record type.  
28                If the RECORD TYPE field is set to '00000000', the mobile

1                   station shall set the record type specific field as follows:

| <u>Field</u>       | <u>Length (bits)</u> |
|--------------------|----------------------|
| <u>NUM_PILOTS</u>  | <u>4</u>             |
| <u>SID_NID_REQ</u> | <u>1</u>             |

NUM\_PILOTS occurrences of the following one field record

|                 |          |
|-----------------|----------|
| <u>PILOT_PN</u> | <u>9</u> |
|-----------------|----------|

2                   NUM\_PILOTS - Number of Pilots reported.

3                   The mobile station shall set this field to the number of pilots  
 4                   whose information is requested in this message.

5                   The mobile station shall set this field to a number equal or  
 6                   greater than one.

7                   SID\_NID\_REQ - SID, NID information requested indicator.

8                   The mobile station shall set this field to '1' if it also requests  
 9                   the SID and NID information for these pilots; otherwise, the  
 10                  mobile station shall set this field to '0'.

11                  The mobile station shall include NUM\_PILOTS occurrences of the following one-field  
 12                  record:

13                  PILOT\_PN - Pilot PN sequence offset index.

14                  The mobile station shall set this field to the pilot PN sequence  
 15                  offset for the base station, in units of 64 PN chips, whose Base  
 16                  Station identification number information is being requested.

17                  RESERVED - Reserved bits.

18                  The mobile station shall add reserved bits as needed in order  
 19                  to make the length of the record equal to an integer number of  
 20                  octets. The mobile station shall set these bits to '0'.

1    2.7.3 Orders

2    *Order Messages* are sent by the mobile station on the r-csch and on the r-dsch. The  
3    general PDU format used on the r-csch is defined in 2.7.1.3.2.2, and the general PDU  
4    format used on the r-dsch is defined in 2.7.2.3.2.1. There are many specific types of *Order*  
5    *Messages*, as shown in Table 2.7.3-1.

6    The mobile station may send on the r-csch any type of order shown in Table 2.7.3-1 with a  
7    'Y' in the first column, but shall not send on the r-csch any type of order with an 'N' in the  
8    first column. The mobile station may send on the r-dsch any type of order shown in  
9    Table 2.7.3-1 with a 'Y' in the second column, but shall not send on the r-dsch any type of  
10   order with an 'N' in the second column. The mobile station shall be capable of sending all  
11   types of orders shown in Table 2.7.3-1 with a 'Y' in the sixth column.

12   An order consists of a 6-bit order code and zero or more order-specific fields. The mobile  
13   station shall set the ORDER field in the *Order Message* to the order code shown in Table  
14   2.7.3-1 corresponding to the type of order being sent.

15   If the order qualification code in the fourth column of Table 2.7.3-1 is '00000000' and there  
16   are no other additional fields as shown by an 'N' in the fifth column, the mobile station  
17   shall include no order qualification code or other order-specific fields in the *Order Message*.  
18   The order qualification code of such a message is implicitly '00000000'.

19   If the order qualification code is not '00000000' and there are no other additional fields as  
20   shown in Table 2.7.3-1 by an 'N' in the fifth column, the mobile station shall include the  
21   order qualification code as the only order-specific field in the *Order Message*.

22   If there are other additional fields as shown in Table 2.7.3-1 by a 'Y' in the fifth column, the  
23   mobile station shall include order-specific fields as specified in the corresponding  
24   subsection of this section.

**Table 2.7.3-1. Order and Order Qualification Codes Used on the r-dsch and the r-csch  
(Part 1 of 4)**

| r-csch Order | r-dsch Order | Order Code, ORDER (binary) | Order Qualification Code, ORDQ (binary) | More Fields other than ORDQ | Support Req'd | Name/Function                                                            |
|--------------|--------------|----------------------------|-----------------------------------------|-----------------------------|---------------|--------------------------------------------------------------------------|
| Y            | Y            | 000010                     | 00000000                                | Y                           | Y             | Base Station Challenge Order (see 2.7.3.1)                               |
| Y            | Y            | 000011                     | 00000000                                | N                           | Y             | SSD Update Confirmation Order                                            |
| Y            | Y            | 000011                     | 00000001                                | N                           | Y             | SSD Update Rejection Order                                               |
| N            | Y            | 000101                     | 0000nnnn                                | N                           | Y             | Parameter Update Confirmation Order (where 'nnnn' is the Request Number) |
| N            | Y            | 001011                     | 00000000                                | N                           | N             | Request Wide Analog Service Order                                        |
| N            | Y            | 001011                     | 00000001                                | N                           | N             | Request Narrow Analog Service Order                                      |
| N            | Y            | 001011                     | 00000010                                | N                           | N             | Request Analog Service Order                                             |
| Y            | Y            | 010000                     | 00000000                                | N                           | Y             | Mobile Station Acknowledgment Order (see [4])                            |
| N            | Y            | 010011                     | 00000000                                | Y                           | N             | Service Option Request Order (Band Class 0 only) (see 2.7.3.2)           |
| N            | Y            | 010100                     | 00000000                                | Y                           | Y             | Service Option Response Order (Band Class 0 only) (see 2.7.3.3)          |
| Y            | Y            | 010101                     | 00000000                                | N                           | Y             | Release Order (normal release)                                           |
| Y            | Y            | 010101                     | 00000001                                | N                           | Y             | Release Order (with power-down indication)                               |
| N            | Y            | 010101                     | 00000010                                | N                           | Y             | Release Order (with service inactive indication)                         |
| N            | Y            | 010111                     | 00000000                                | N                           | N             | Long Code Transition Request Order (request public)                      |
| N            | Y            | 010111                     | 00000001                                | N                           | N             | Long Code Transition Request Order (request private)                     |

1   **Table 2.7.3-1. Order and Order Qualification Codes Used on the r-dsch and the r-csch**  
 2   **(Part 2 of 4)**

| r-csch Order | r-dsch Order | Order Code, ORDER (binary) | Order Qualification Code, ORDQ (binary) | More Fields other than ORDQ | Support Req'd | Name/Function                                                                                                                                   |
|--------------|--------------|----------------------------|-----------------------------------------|-----------------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| N            | Y            | 010111                     | 00000010                                | N                           | Y             | <i>Long Code Transition Response Order (use public)</i>                                                                                         |
| N            | Y            | 010111                     | 00000011                                | N                           | N             | <i>Long Code Transition Response Order (use private)</i>                                                                                        |
| N            | Y            | 011000                     | 00000000                                | N                           | Y             | <i>Connect Order</i>                                                                                                                            |
| N            | Y            | 011001                     | 0000nnnn                                | N                           | Y             | <i>Continuous DTMF Tone Order (where 'nnnn' is the tone per Table 2.7.1.3.2.4-4).</i>                                                           |
| N            | Y            | 011001                     | 11111111                                | N                           | Y             | <i>Continuous DTMF Tone Order (Stop continuous DTMF tone)</i>                                                                                   |
| N            | Y            | 011101                     | nnnnnnnn                                | N                           | Y             | <i>Service Option Control Order (Band Class 0 only) (the specific control is designated by 'nnnnnnnn' as determined by each service option)</i> |
| Y            | Y            | 011110                     | nnnnnnnn                                | N                           | N             | <i>Local Control Response Order (specific response as designated by 'nnnnnnnn' as determined by each system)</i>                                |
| Y            | Y            | 011111                     | 00000001                                | Y                           | Y             | <i>Mobile Station Reject Order (unspecified reason; see 2.7.3.4)</i>                                                                            |
| Y            | Y            | 011111                     | 00000010                                | Y                           | Y             | <i>Mobile Station Reject Order (message not accepted in this state; see 2.7.3.4)</i>                                                            |
| Y            | Y            | 011111                     | 00000011                                | Y                           | Y             | <i>Mobile Station Reject Order (message structure not acceptable; see 2.7.3.4)</i>                                                              |

**Table 2.7.3-1. Order and Order Qualification Codes Used on the r-dsch and the r-csch**  
**(Part 3 of 4)**

| r-csch Order | r-dsch Order | Order Code, ORDER (binary) | Order Qualification Code, ORDQ (binary) | More Fields other than ORDQ | Support Req'd | Name/Function                                                                                                                         |
|--------------|--------------|----------------------------|-----------------------------------------|-----------------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Y            | Y            | 011111                     | 00000100                                | Y                           | Y             | <i>Mobile Station Reject Order</i> (message field not in valid range; see 2.7.3.4)                                                    |
| N            | Y            | 011111                     | 00000101                                | Y                           | Y             | <i>Mobile Station Reject Order</i> (message type or order code not understood; see 2.7.3.4)                                           |
| Y            | Y            | 011111                     | 00000110                                | Y                           | Y             | <i>Mobile Station Reject Order</i> (message requires a capability that is not supported by the mobile station; see 2.7.3.4)           |
| Y            | Y            | 011111                     | 00000111                                | Y                           | Y             | <i>Mobile Station Reject Order</i> (message cannot be handled by the current mobile station configuration; see 2.7.3.4)               |
| Y            | Y            | 011111                     | 00001000                                | Y                           | Y             | <i>Mobile Station Reject Order</i> (response message would exceed allowable length; see 2.7.3.4)                                      |
| Y            | Y            | 011111                     | 00001001                                | Y                           | Y             | <i>Mobile Station Reject Order</i> (information record is not supported for the specified band class and operating mode; see 2.7.3.4) |
| N            | Y            | 011111                     | 00001010                                | Y                           | Y             | <i>Mobile Station Reject Order</i> (search set not specified; see 2.6.6.2.5.1)                                                        |
| N            | Y            | 011111                     | 00001011                                | Y                           | Y             | <i>Mobile Station Reject Order</i> (invalid search request; see 2.6.6.2.5.1)                                                          |

1   **Table 2.7.3-1. Order and Order Qualification Codes Used on the r-dsch and the r-csch**  
 2   **(Part 4 of 4)**

| r-csch<br>Order               | r-dsch<br>Order | Order<br>Code,<br>ORDER<br>(binary) | Order<br>Qualification<br>Code, ORDQ<br>(binary) | More<br>Fields<br>other<br>than<br>ORDQ | Support<br>Req'd | Name/Function                                                                                                                 |
|-------------------------------|-----------------|-------------------------------------|--------------------------------------------------|-----------------------------------------|------------------|-------------------------------------------------------------------------------------------------------------------------------|
| N                             | Y               | 011111                              | 00001100                                         | Y                                       | Y                | <i>Mobile Station Reject Order</i><br>(invalid Frequency Assignment; see 2.6.6.2.5.1)                                         |
| N                             | Y               | 011111                              | 00001101                                         | Y                                       | Y                | <i>Mobile Station Reject Order</i><br>(search period too short; see 2.6.6.2.5.1)                                              |
| Y                             | N               | 011111                              | 00001110                                         | NY                                      | Y                | <i>Mobile Station Reject Order</i><br>(RC does not match with the value in the field DEFAULT_CONFIG; see 2.6.3.3 and 2.6.3.5) |
| Y                             | N               | 011111                              | 00001111                                         | N                                       | Y                | <i>Mobile Station Reject Order</i><br>(Encryption key with the specified KEY_SEQ not stored)                                  |
| N                             | Y               | 011111                              | 00010000                                         | Y                                       | Y                | <i>Mobile Station Reject Order</i><br>(call assignment not accepted; see 2.7.3.4)                                             |
| N                             | Y               | 011111                              | 00010001                                         | Y                                       | Y                | <i>Mobile Station Reject Order</i><br>(no call control instance present with the specified identifier; see 2.7.3.4)           |
| N                             | Y               | 011111                              | 00010010                                         | Y                                       | Y                | <i>Mobile Station Reject Order</i><br>(a call control instance is already present with the specified identifier; see 2.7.3.4) |
| N                             | Y               | 011111                              | 00010011                                         | Y                                       | Y                | <i>Mobile Station Reject Order</i><br>(TAG received does not match any of the TAG stored; see 2.7.3.4)                        |
| All other codes are reserved. |                 |                                     |                                                  |                                         |                  |                                                                                                                               |

## 1    2.7.3.1 Base Station Challenge Order

2

| Order-Specific Field | Length (bits) |
|----------------------|---------------|
| ORDQ                 | 8             |
| RANDBS               | 32            |

3

4            ORDQ – Order qualification code.

5            The mobile station shall set this field to '00000000'.

6            RANDBS – Random challenge data.

7            The mobile station shall set this field as specified in  
8            2.3.12.1.5.

## 1    2.7.3.2 Service Option Request Order

2

| <b>Order-Specific Field</b> | <b>Length (bits)</b> |
|-----------------------------|----------------------|
| ORDQ                        | 8                    |
| SERVICE_OPTION              | 16                   |

3

4            ORDQ    – Order qualification code.

5                         The mobile station shall set this field to '00000000'.

6            SERVICE\_OPTION    – Service option.

7                         The mobile station shall set this field to the service option  
8                         code specified in [30], corresponding to the requested or  
9                         alternative service option.

## 1    2.7.3.3 Service Option Response Order

2

| Order-Specific Field | Length (bits) |
|----------------------|---------------|
| ORDQ                 | 8             |
| SERVICE_OPTION       | 16            |

3

4              ORDQ    -    Order qualification code.

5              The mobile station shall set this field to '00000000'.

6              SERVICE\_OPTION    -    Service option.

7              The mobile station shall set this field to the service option  
8              code specified in [30], corresponding to the accepted service  
9              option, or to '0000000000000000' to reject the proposed  
10             service option. See 2.6.4.1.2.2.1.

1      2.7.3.4 Mobile Station Reject Order

2

3

| <b>Order-Specific Field</b> | <b>Length (bits)</b> |
|-----------------------------|----------------------|
| ORDQ                        | 8                    |
| REJECTED_TYPE               | 8                    |

If the order is sent on the Access Channel or Enhanced Access Channel and

REJECTED\_TYPE is '00000111',  
or if the order is sent on the Reverse Traffic Channel and  
REJECTED\_TYPE is '00000001',  
the order-specific fields also include the following two fields:

|                   |           |
|-------------------|-----------|
| <u>RESERVED_1</u> | <u>2</u>  |
| REJECTED_ORDER    | <u>68</u> |
| REJECTED_ORDQ     | 8         |

If the order is sent on the Reverse Traffic Channel and  
REJECTED\_TYPE is '00001100',  
the order-specific fields also include the following field:

|                   |    |
|-------------------|----|
| REJECTED_PARAM_ID | 16 |
|-------------------|----|

If the order is sent on the Access Channel or Enhanced Access Channel and

REJECTED\_TYPE is '00001100',  
or if the order is sent on the Reverse Traffic Channel and  
REJECTED\_TYPE is '00000011' '00101000', or  
REJECTED\_TYPE is '00001110', or '00101010',  
the order-specific fields also include the following field:

|                 |   |
|-----------------|---|
| REJECTED_RECORD | 8 |
|-----------------|---|

If the ORDQ is '00010000', '00010001', or '00010010', the order-specific fields also include the following fields:

|         |   |
|---------|---|
| CON_REF | 8 |
|---------|---|

If the ORDQ is '00010011', the order-specific fields also include the following fields:

|         |   |
|---------|---|
| CON_REF | 8 |
| TAG     | 4 |

|                   |                          |
|-------------------|--------------------------|
| REJECTED_PDU_TYPE | 0 or 2                   |
| <u>RESERVED_2</u> | <u>0 - 7 (as needed)</u> |

<sup>1</sup><sup>2</sup>

ORDQ – Order qualification code.

|    |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|----|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  |                   | The mobile station shall set this field to the ORDQ value shown in Table 2.7.3-1 corresponding to the reason for rejecting the message.                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 2  |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 3  |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 4  | REJECTED_TYPE     | <ul style="list-style-type: none"> <li>- Message type of rejected message.</li> </ul> <p>The mobile station shall set this field to the value of the MSG_TYPE field of the message being rejected.</p> <p>If the MSG_TYPE field is not 8 bits, the mobile station shall set the least significant bits of this field to the value of the MSG_TYPE field and set all the remaining bits to '0'.</p>                                                                                                                                                           |
| 5  |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 6  |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 7  |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 8  |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 9  |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 10 | <u>RESERVED_1</u> | <ul style="list-style-type: none"> <li>- <u>Reserved bits.</u></li> </ul> <p><u>The mobile station shall set this field to '00'.</u></p>                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 11 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 12 | REJECTED_ORDER    | <ul style="list-style-type: none"> <li>- Order type of rejected message.</li> </ul> <p>If the rejected message was an <i>Order Message</i>, the mobile station shall set this field to the value of the ORDER field in the rejected message.</p> <p>Otherwise, the mobile station shall omit this field.</p>                                                                                                                                                                                                                                                 |
| 13 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 14 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 15 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 16 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 17 | REJECTED_ORDQ     | <ul style="list-style-type: none"> <li>- Order qualification code of rejected message.</li> </ul> <p>If the rejected message was an <i>Order Message</i> including an ORDQ field, the mobile station shall set this field to the value of the ORDQ field in the rejected message. If the rejected message was an <i>Order Message</i> not including an ORDQ field, the mobile station shall set this field to '00000000'.</p> <p>Otherwise, the mobile station shall omit this field.</p>                                                                    |
| 18 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 19 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 20 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 21 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 22 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 23 | REJECTED_PARAM_ID | <ul style="list-style-type: none"> <li>- Parameter identification of the rejected parameter.</li> </ul> <p>If the rejected message was a <i>Set Parameters Message</i>, the mobile station shall set this field to the PARAMETER_ID of the first parameter for which the requested operation could not be completed.</p> <p>Otherwise, the mobile station shall omit this field.</p>                                                                                                                                                                         |
| 24 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 25 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 26 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 27 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 28 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 29 | REJECTED_RECORD   | <ul style="list-style-type: none"> <li>- Record type of the rejected information record.</li> </ul> <p>If the rejected message was a <i>Feature Notification Message</i>, an <i>Alert With Information Message</i>, <i>Extended Alert With Information Message</i>, <i>Extended Flash With Information Message</i>, or a <i>Flash With Information Message</i>, the mobile station shall set this field to the RECORD_TYPE field of the first information record that could not be accepted.</p> <p>Otherwise, the mobile station shall omit this field.</p> |
| 30 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 31 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 32 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 33 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 34 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 35 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 36 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 37 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 38 | <u>CON_REF</u>    | <ul style="list-style-type: none"> <li>- <u>Connection reference.</u></li> </ul> <p><u>The mobile station shall set this field to the value of the connection reference of the service option connection corresponding to the call.</u></p>                                                                                                                                                                                                                                                                                                                  |
| 39 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 40 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 41 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 42 | TAG               | <ul style="list-style-type: none"> <li>- Transaction identifier.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

1                   The mobile station shall set this field to the transaction  
 2                   identifier (received from the base station) of the call  
 3                   assignment being rejected.

4                   **CON\_REF** Connection reference.

5                   The mobile station shall set this field to the value of the  
 6                   connection reference of the service option connection  
 7                   corresponding to the call.

8           **REJECTED\_PDU\_TYPE** - PDU type of the rejected message.

9                   If  $P_{REV\_IN\_USE_S}$  is less than six, the mobile station shall  
 10                  omit this field; otherwise, the mobile station shall set this field  
 11                  to the REJECTED\_PDU\_TYPE code shown in Table 2.7.3.4-1  
 12                  corresponding to the PDU type of the message being rejected.

13  
 14                  **Table 2.7.3.4-1. REJECTED\_PDU\_TYPE codes**

| <b>REJECTED_PDU_TYPE (binary)</b> | <b>Description</b>    |
|-----------------------------------|-----------------------|
| 00                                | 20 ms regular message |
| 01                                | 5 ms mini message     |
| 01                                | Reserved              |
| 11                                | Reserved              |

15                  **RESERVED\_2** - Reserved bits.

16                   The mobile station shall add reserved bits as needed in order  
 17                  to make the total length of this record containing order-  
 18                  specific fields equal to an integer number of octets. The  
 19                  mobile station shall set these bits to '0'.

## 1    2.7.4 Information Records

2    On the r-csch, information records may be included in the *Status Response Message*, the  
 3    *Extended Status Response Message*, the *Origination Message*, and the *Device Information*  
 4    *Message*. On the r-dsch, information records may be included in the *Origination*  
 5    *Continuation Message*, the *Enhanced Origination Message*, the *Flash With Information*  
 6    *Message*, the *Extended Flash With Information Message*, the *Service Request Message*, the  
 7    *Service Response Message*, the *Status Message*, and the *Status Response Message*. Table  
 8    2.7.4-1 lists the information record type values that may be used with each message type.  
 9    The following sections describe the contents of each of the record types in detail.

10

11    **Table 2.7.4-1. Information Record Types (Part 1 of 2)**

| Information Record                   | Record Type (binary) | Message Type             | r-csch | r-dsch |
|--------------------------------------|----------------------|--------------------------|--------|--------|
| Reserved                             | 00000001             | None                     | -      | -      |
| Reserved for Obsolete Identification | 00000010             |                          |        |        |
| Keypad Facility                      | 00000011             | Flash                    | N      | Y      |
| Called Party Number                  | 00000100             | Flash                    | N      | Y      |
| Calling Party Number                 | 00000101             | Flash                    | N      | Y      |
|                                      |                      | Origination Continuation | N      | Y      |
| Reserved for Obsolete Identification | 00000110             | -                        | -      | -      |
| Call Mode                            | 00000111             | Status [1]               | N      | Y      |
| Terminal Information                 | 00001000             | Status [1]               | Y      | Y      |
| Roaming Information                  | 00001001             | Status [1]               | Y      | Y      |
| Security Status                      | 00001010             | Status [1]               | N      | Y      |
| Connected Number                     | 00001011             | Flash                    | N      | Y      |
| IMSI                                 | 00001100             | Status [1]               | Y      | Y      |
| ESN                                  | 00001101             | Status [1]               | Y      | Y      |
| Band Class Information               | 00001110             | Status [2]               | Y      | Y      |
| Power Class Information              | 00001111             | Status [2]               | Y      | Y      |
| Operating Mode Information           | 00010000             | Status [2]               | Y      | Y      |
| Service Option Information           | 00010001             | Status [2]               | Y      | Y      |
| Multiplex Option Information         | 00010010             | Status [2]               | Y      | Y      |
|                                      | 00010011             | Status [2]               | N      | Y      |
| Service Configuration Information    |                      | Service Request          | N      | Y      |
|                                      |                      | Service Response         | N      | Y      |

1  
**Table 2.7.4-1. Information Record Types (Part 2 of 2)**

| <b>Information Record</b>                                                                                                                                   | <b>Record Type (binary)</b> | <b>Message Type</b>      | <b>r-csch</b> | <b>r-dsch</b> |  |  |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|--------------------------|---------------|---------------|--|--|--|
| Called Party Subaddress                                                                                                                                     | 00010100                    | Flash                    | N             | Y             |  |  |  |
|                                                                                                                                                             |                             | Origination Continuation | N             | Y             |  |  |  |
| Calling Party Subaddress                                                                                                                                    | 00010101                    | Flash                    | N             | Y             |  |  |  |
|                                                                                                                                                             |                             | Origination Continuation | N             | Y             |  |  |  |
| Connected Subaddress                                                                                                                                        | 00010110                    | Flash                    | N             | Y             |  |  |  |
| Power Control Information                                                                                                                                   | 00010111                    | Status [2]               | Y             | Y             |  |  |  |
| IMSI_M                                                                                                                                                      | 00011000                    | Status [2]               | Y             | Y             |  |  |  |
| IMSI_T                                                                                                                                                      | 00011001                    | Status [2]               | Y             | Y             |  |  |  |
| Capability Information                                                                                                                                      | 00011010                    | Status [2]               | Y             | Y             |  |  |  |
| Channel Configuration Capability Information                                                                                                                | 00011011                    | Status [2]               | Y             | Y             |  |  |  |
| Extended Multiplex Option Information                                                                                                                       | 00011100                    | Status [2]               | Y             | Y             |  |  |  |
| Reserved for Obsolete Identification                                                                                                                        | 00011101                    | -                        | -             | -             |  |  |  |
| Geo-location Information                                                                                                                                    | 00011110                    | Status [2]               | Y             | Y             |  |  |  |
| Band Subclass Information                                                                                                                                   | 00011111                    | Status [2]               | Y             | Y             |  |  |  |
| Global Emergency Call                                                                                                                                       | 00100000                    | Flash                    | N             | Y             |  |  |  |
| Hook Status                                                                                                                                                 | 00100001                    | DIM                      | Y             | Y             |  |  |  |
|                                                                                                                                                             |                             | Status [2]               | Y             | Y             |  |  |  |
| QoS Parameters                                                                                                                                              | 00100010                    | Origination Continuation | N             | Y             |  |  |  |
|                                                                                                                                                             |                             | Enhanced Origination     | N             | Y             |  |  |  |
| Encryption Capability                                                                                                                                       | 00100011                    | Status [2]               | Y             | Y             |  |  |  |
| Extended Record Type — International                                                                                                                        | 11111110                    | Country-Specific         |               |               |  |  |  |
| All other record type values are reserved.                                                                                                                  |                             |                          |               |               |  |  |  |
| “Flash” refers to either the <i>Flash With Information Message</i> or the <i>Extended Flash With Information Message</i> .                                  |                             |                          |               |               |  |  |  |
| “DIM” refers to the <i>Device Information Message</i> .                                                                                                     |                             |                          |               |               |  |  |  |
| [1] This information record may be included in a <i>Status Message</i> , a <i>Status Response Message</i> , or an <i>Extended Status Response Message</i> . |                             |                          |               |               |  |  |  |
| [2] This information record may be included in a <i>Status Response Message</i> or an <i>Extended Status Response Message</i> .                             |                             |                          |               |               |  |  |  |

1      2.7.4.1 Reserved

## 1    2.7.4.2 Keypad Facility

2    This information record can be included in a *Flash With Information Message* and allows the  
3    user to send characters entered via a keyboard or other such terminal.

4

| Type-Specific Field | Length (bits) |
|---------------------|---------------|
|---------------------|---------------|

One or more occurrences of the following field:

|       |   |
|-------|---|
| CHARi | 8 |
|-------|---|

5

6    CHARi – Character.

7    The mobile station shall include one occurrence of this field  
8    for each character entered. The mobile station shall set each  
9    occurrence of this field to the ASCII representation  
10   corresponding to the character entered, as specified in [9],  
11   with the most significant bit set to '0'.

## 1    2.7.4.3 Called Party Number

2    This information record identifies the called party's number.

| Type-Specific Field | Length (bits) |
|---------------------|---------------|
| NUMBER_TYPE         | 3             |
| NUMBER_PLAN         | 4             |

Zero or more occurrences of the following field:

|       |   |
|-------|---|
| CHARi | 8 |
|-------|---|

|          |   |
|----------|---|
| RESERVED | 1 |
|----------|---|

3

4    NUMBER\_TYPE    -    Type of number.

5                     The mobile station shall set this field to the NUMBER\_TYPE  
6                     value shown in Table 2.7.1.3.2.4-2 corresponding to the type  
7                     of the called number, as defined in [7], Section 4.5.9.

8    NUMBER\_PLAN    -    Numbering plan.

9                     The mobile station shall set this field to the NUMBER\_PLAN  
10                    value shown in Table 2.7.1.3.2.4-3 corresponding to the  
11                    numbering plan used for the called number, as defined in [7],  
12                    Section 4.5.9.

13                    CHARi    -    Character.

14                    The mobile stations shall include one occurrence of this field  
15                    for each character in the called number. The mobile station  
16                    shall set each occurrence of this field to the ASCII  
17                    representation corresponding to the character, as specified in  
18                    [9], with the most significant bit set to '0'.

19    RESERVED    -    Reserved bit.

20                    The mobile station shall set this field to '0'.

## 1    2.7.4.4 Calling Party Number

2    This information record can be included in a *Flash With Information Message* and identifies  
 3    the calling party's number.

| Type-Specific Field | Length (bits) |
|---------------------|---------------|
| NUMBER_TYPE         | 3             |
| NUMBER_PLAN         | 4             |
| PI                  | 2             |
| SI                  | 2             |

Zero or more occurrences of the following field:

|       |   |
|-------|---|
| CHARi | 8 |
|-------|---|

|          |   |
|----------|---|
| RESERVED | 5 |
|----------|---|

- 4
- 5    NUMBER\_TYPE    -    Type of number.  
 6                  The mobile station shall set this field to the NUMBER\_TYPE  
 7                  value shown in Table 2.7.1.3.2.4-2 corresponding to the type  
 8                  of the calling number, as defined in [7], Section 4.5.9.
- 9    NUMBER\_PLAN    -    Numbering plan.  
 10                 The mobile station shall set this field to the NUMBER\_PLAN  
 11                 value shown in Table 2.7.1.3.2.4-3 corresponding to the  
 12                 numbering plan used for the calling number, as defined in [7],  
 13                 Section 4.5.9.
- 14    PI    -    Presentation indicator.  
 15                 This field indicates whether or not the calling number should  
 16                 be displayed.  
 17                 The mobile station shall set this field to the PI value shown in  
 18                 Table 2.7.4.4-1 corresponding to the presentation indicator,  
 19                 as defined in [7], Section 4.5.9.
- 20

21    **Table 2.7.4.4-1. Presentation Indicators**

| Description             | PI (binary) |
|-------------------------|-------------|
| Presentation allowed    | 00          |
| Presentation restricted | 01          |
| Number not available    | 10          |
| Reserved                | 11          |

- 1           SI     – Screening indicator.  
 2                 This field indicates how the calling number was screened.  
 3                 The mobile station shall set this field to the SI value shown in  
 4                 Table 2.7.4.4-2 corresponding to the screening indicator  
 5                 value, as defined in [7], Section 4.5.9.

6

7           **Table 2.7.4.4-2. Screening Indicators**

| Description                        | SI (binary) |
|------------------------------------|-------------|
| User-provided, not screened        | 00          |
| User-provided, verified and passed | 01          |
| User-provided, verified and failed | 10          |
| Network-provided                   | 11          |

8

- 9           CHARi     – Character.  
 10                 The mobile stations shall include one occurrence of this field  
 11                 for each character in the calling number. The mobile station  
 12                 shall set each occurrence of this field to the ASCII  
 13                 representation corresponding to the character, as specified in  
 14                 [9], with the most significant bit set to '0'.  
 15           RESERVED     – Reserved bits.  
 16                 The mobile station shall set this field to '00000'.

1      2.7.4.5 Reserved

2

## 1    2.7.4.6 Call Mode

2    This information record can be included in a *Status Message* or a *Status Response Message*  
 3    to return the mobile station's preferred call mode and call-related information.

4    If P REV IN USE<sub>S</sub> is equal to or greater than seven, this information record will not be  
 5    requested by the base station (see 3.7.2.3.2.15 & 3.7.4.4).

6

| Type-Specific Field | Length (bits) |
|---------------------|---------------|
| ORIG_MODE           | 1             |
| PRI_SERVICE         | 16            |
| SEC_SERVICE         | 16            |
| RESERVED            | 7             |

7

- 8    ORIG\_MODE    -    Origination mode indicator.  
 9       If the current call is a mobile-originated call, the mobile  
 10      station shall set this field to '0'. If the current call is a mobile-  
 11      terminated call, the mobile station shall set this field to '1'.
- 12    PRI\_SERVICE    -    Primary service option.  
 13      The mobile station shall set this field to the value specified in  
 14      [30], corresponding to the current primary service option. If  
 15      no primary service option is active, the mobile station shall set  
 16      this field to '0000000000000000'.
- 17    SEC\_SERVICE    -    Secondary service option.  
 18      The mobile station shall set this field to the value specified in  
 19      [30], corresponding to the current secondary service option. If  
 20      no secondary service option is active, the mobile station shall  
 21      set this field to '0000000000000000'.
- 22    RESERVED    -    Reserved bits.  
 23      The mobile station shall set this field to '0000000'.

## 1    2.7.4.7 Terminal Information

2    This information record can be included in a *Status Message*, a *Status Response Message*,  
 3    or an *Extended Status Response Message* to return configuration information about the  
 4    mobile station.

| Type-Specific Field | Length (bits) |
|---------------------|---------------|
| MOB_P_REV           | 8             |
| MOB_MFG_CODE        | 8             |
| MOB_MODEL           | 8             |
| MOB_FIRM_REV        | 16            |
| SCM                 | 8             |
| LOCAL_CTRL          | 1             |
| SLOT_CYCLE_INDEX    | 3             |

One or more occurrences of the following field:

|                |    |
|----------------|----|
| SERVICE_OPTION | 16 |
|----------------|----|

|          |   |
|----------|---|
| RESERVED | 4 |
|----------|---|

- 5
- 6    MOB\_P\_REV    -    Protocol revision of the mobile station.  
 7                 If the status request does not specify a band class, the mobile  
 8                 station shall set this field to '00000111'; otherwise, the  
 9                 mobile station shall set this field to the MOB\_P\_REV  
 10          associated with the requested band class and operating mode.
- 11    MOB\_MFG\_CODE    -    Manufacturer code.  
 12                 This field identifies the manufacturer of the mobile station.  
 13                 The mobile station shall set this field to the manufacturer  
 14          code assigned to its manufacturer.
- 15    MOB\_MODEL    -    Model number.  
 16                 This number is assigned by the manufacturer for a particular  
 17          model.  
 18                 The mobile station shall set this field to the model number  
 19          assigned by the manufacturer for this mobile station.
- 20    MOB\_FIRM\_REV    -    Firmware revision number.  
 21                 This number is assigned by the manufacturer for a particular  
 22          firmware version.  
 23                 The mobile station shall set this field to the revision number  
 24          assigned by the manufacturer for the firmware version  
 25          running in this mobile station.

- 1                   SCM     – Station class mark.  
2                                 The mobile station shall set this field to its station class mark.  
3                                 See 2.3.3.
- 4                   LOCAL\_CTRL     – Local control indicator.  
5                                 If local control is enabled, the mobile station shall set this  
6                                 field to '1'. If local control is disabled, the mobile station shall  
7                                 set this field to '0'. See [6].
- 8                   SLOT\_CYCLE\_INDEX     – Slot cycle index.  
9                                 If the requested operating mode is CDMA and the mobile  
10                                 station is configured for slotted mode operation, the mobile  
11                                 station shall set this field to the preferred slot cycle index,  
12                                 SLOT\_CYCLE\_INDEX<sub>p</sub> (see 2.6.2.1.1); otherwise, the mobile  
13                                 station shall set this field to '000'.
- 14                   SERVICE\_OPTION     – Supported service option.  
15                                 If the requested operating mode is CDMA, the mobile station  
16                                 shall include one occurrence of this field for each service  
17                                 option supported by the mobile station (see [30]); otherwise,  
18                                 the mobile station shall include one occurrence of this field  
19                                 with the value set to '0000000000000000'.
- 20                   RESERVED     – Reserved bits.  
21                                 The mobile station shall set this field to '0000'.

## 1    2.7.4.8 Roaming Information

2    This information record can be included in a *Status Message*, a *Status Response Message*,  
 3    or an *Extended Status Response Message* to return roaming information about the mobile  
 4    station.

| Type-Specific Field | Length (bits) |
|---------------------|---------------|
| ACCOLC              | 4             |
| MOB_TERM_HOME       | 1             |
| MOB_TERM_FOR_SID    | 1             |
| MOB_TERM_FOR_NID    | 1             |

Zero or more occurrences of the following record:

|     |    |
|-----|----|
| SID | 15 |
| NID | 16 |

|          |                   |
|----------|-------------------|
| RESERVED | 0 - 7 (as needed) |
|----------|-------------------|

- 5                    ACCOLC    -    Overload class.

6                    The mobile station shall set this field to the access overload  
 7                    class assigned to the mobile station.

- 8                    MOB\_TERM\_HOME    -    Home (non-roaming) registration enable indicator.

9                    If the mobile station is configured to receive mobile station  
 10                  terminated calls when not roaming, the mobile station shall  
                       set this field to '1'; otherwise, the mobile station shall set this  
                       field to '0'. See 2.6.5.3.

- 11                  MOB\_TERM\_FOR\_SID    -    Foreign SID roaming registration enable indicator.

12                  If the mobile station is configured to receive mobile station  
 13                  terminated calls when it is a foreign SID roamer, the mobile  
                       station shall set this field to '1'; otherwise, the mobile station  
                       shall set this field to '0'. See 2.6.5.3.

- 14                  MOB\_TERM\_FOR\_NID    -    Foreign NID roaming registration enable indicator.

15                  If the mobile station is configured to receive mobile station  
 16                  terminated calls when it is a foreign NID roamer, the mobile  
                       station shall set this field to '1'; otherwise, the mobile station  
                       shall set this field to '0'. See 2.6.5.3.

1 The mobile station shall include one occurrence of the following two-field record for each  
2 home (non-roaming) (SID, NID) pair (see 2.6.5.2):

<sup>3</sup> SID – System identification.

4 The mobile station shall set this field to the SID value for this  
5 (SID, NID) pair.

6 NID – Network identification.

7 The mobile station shall set this field to the NID value for this  
8 (SID, NID) pair.

9                   RESERVED – Reserved bits.

10 The mobile station shall add reserved bits as needed in order  
11 to make the length of the entire information record equal to an  
12 integer number of octets. The mobile station shall set these  
13 bits to '0'.

## 1    2.7.4.9 Security Status

2    This information record can be included in a *Status Message* or a *Status Response Message*  
 3    to return the authentication, encryption, and voice privacy modes of the mobile station.

4

| Type-Specific Field | Length (bits) |
|---------------------|---------------|
| AUTH_MODE           | 2             |
| ENCRYPT_MODE        | 2             |
| PRIVATE_LCM         | 1             |
| RESERVED            | 3             |

5

- 6    AUTH\_MODE    -    Authentication mode.

7                 If the mobile station provided standard authentication  
 8                 information at the initiation of this call, the mobile station  
 9                 shall set this field to '01'; otherwise, the mobile station shall  
 10          set this field to '00'. All other values are reserved.

- 11          ENCRYPT\_MODE    -    Message encryption mode.

12                 The mobile station shall set this field to the value shown in  
 13                 Table 3.7.2.3.2.8-2 corresponding to the message encryption  
 14                 mode currently in use for this call.

- 15          PRIVATE\_LCM    -    Private long code mask indicator.

16                 If the mobile station is using the private long code mask for  
 17                 this call, the mobile station shall set this field to '1'. If the  
 18                 mobile station is using the public long code mask for this call,  
 19                 the mobile station shall set this field to '0'.

- 20          RESERVED    -    Reserved bits.

21                 The mobile station shall set this field to '000'.

## 1    2.7.4.10 Connected Number

2    This information record can be included in a *Flash With Information Message* to identify the  
 3    responding party to a call.

| Type-Specific Field | Length (bits) |
|---------------------|---------------|
| NUMBER_TYPE         | 3             |
| NUMBER_PLAN         | 4             |
| PI                  | 2             |
| SI                  | 2             |

Zero or more occurrences of the following field:

|       |   |
|-------|---|
| CHARi | 8 |
|-------|---|

|          |   |
|----------|---|
| RESERVED | 5 |
|----------|---|

- 4    NUMBER\_TYPE    - Type of number.  
 5    The mobile station shall set this field to the NUMBER\_TYPE  
 6    value shown in Table 2.7.1.3.2.4-2 corresponding to the type  
 7    of the connected number as defined [7], Section 4.5.9.
- 8    NUMBER\_PLAN    - Numbering plan.  
 9    The mobile station shall set this field to the NUMBER\_PLAN  
 10   value shown in Table 2.7.1.3.2.4-3 corresponding to the  
 11   numbering plan used for the connected number, as defined,  
 12   in [7], Section 4.5.9.
- 13      PI    - Presentation indicator.  
 14      This field indicates whether or not the connected number  
 15   should be displayed. The mobile station shall set this field to  
 16   the PI value shown in Table 2.7.4.4-1 corresponding to the  
 17   presentation indicator, as defined in [7], Section 4.5.9.
- 18      SI    - Screening indicator.  
 19      This field indicates how the connected number was screened.  
 20   The mobile station shall set this field to the SI value shown in  
 21   Table 2.7.4.4-2 corresponding to the screening indicator  
 22   value, as defined in [7], Section 4.5.9.
- 23      CHARi    - Character.  
 24      The mobile station shall include one occurrence of this field  
 25   for each character in the connected number. The mobile  
 26   station shall set each occurrence of this field to the ASCII  
 27   representation corresponding to the character, as specified in  
 28   [9], with the most significant bit set to '0'.
- 29      RESERVED    - Reserved bits.  
 30      The mobile station shall set this field to '00000'.

## 1    2.7.4.11 IMSI

2    This information record can be included in a *Status Message*, a *Status Response Message*,  
 3    or an *Extended Status Response Message* to return the mobile station's operational IMSI.

| Type-Specific Field | Length (bits) |
|---------------------|---------------|
| IMSI_CLASS          | 1             |
| IMSI_ADDR_NUM       | 3             |
| MCC_O               | 10            |
| IMSI_O_11_12        | 7             |
| IMSI_O_S            | 34            |
| RESERVED            | 1             |

- 4
- 5        IMSI\_CLASS    -    If IMSI\_O is a class 0 IMSI, the mobile station shall set this  
 6                  field to '0'; otherwise, the mobile station shall set this field to  
 7                  '1'.
  - 8        IMSI\_ADDR\_NUM    -    Number of IMSI\_O address digits.  
 9                  If IMSI\_O is a class 1 IMSI, the mobile station shall set this  
 10                 field to four less than the number of digits in the NMSI;  
 11                 otherwise, the mobile station shall set this field to '000'.
  - 12       MCC\_O    -    Mobile Country Code of the operational IMSI.  
 13                  The mobile station shall set this field to MCC\_O<sub>s</sub>. (see 2.3.1).
  - 14       IMSI\_O\_11\_12    -    The 11th and 12th digits of the operational IMSI.  
 15                  The mobile station shall set this field to IMSI\_O\_11\_12<sub>s</sub>.  
 16                 (see 2.3.1).
  - 17       IMSI\_O\_S    -    Last ten digits of the operational IMSI.  
 18                  The mobile station shall set this field to IMSI\_O\_S. (see 2.3.1.)
  - 19       RESERVED    -    Reserved bit.  
 20                  The mobile station shall set this field to '0'.

## 1    2.7.4.12 ESN

2    This information record can be included in a *Status Message*, a *Status Response Message*,  
3    or an *Extended Status Response Message* to return the mobile station ESN.

| Type-Specific Field | Length (bits) |
|---------------------|---------------|
| ESN                 | 32            |

4

5    ESN      –    Mobile station electronic serial number.

6    The mobile station shall set this field to its electronic serial  
7    number (see 2.3.2).

## 1    2.7.4.13 Band Class Information

2    This information record can be included in a *Status Response Message*, or an *Extended*  
 3    *Status Response Message* to return band class information about the mobile station.

| Type-Specific Field | Length (bits)  |
|---------------------|----------------|
| BAND_CLASS_INFO     | 8 × RECORD_LEN |

- 4
- 5    BAND\_CLASS\_INFO    -    Band class information.  
 6                         This field indicates which band classes are supported by the  
 7                         mobile station.  
 8                         This field currently consists of the following subfields which  
 9                         are included in the information record in the order shown:

| Subfield                      | Length (bits)      | Subfield Description                   |
|-------------------------------|--------------------|----------------------------------------|
| BAND_CLASS_0                  | 1                  | 800 MHz cellular band                  |
| BAND_CLASS_1                  | 1                  | 1.8 to 2.0 GHz PCS band                |
| BAND_CLASS_2                  | 1                  | 872 to 960 MHz TACS band               |
| BAND_CLASS_3                  | 1                  | 832 to 925 MHz JTACS band              |
| BAND_CLASS_4                  | 1                  | 1.75 to 1.87 GHz Korean PCS band       |
| BAND_CLASS_5                  | 1                  | 450 MHz NMT band                       |
| BAND_CLASS_6                  | 1                  | 2 GHz IMT-2000 band                    |
| BAND_CLASS_7                  | 1                  | 700 MHz band                           |
| BAND_CLASS_8                  | 1                  | 1800 MHz band                          |
| BAND_CLASS_9                  | 1                  | 900 MHz band                           |
| <a href="#">BAND_CLASS_10</a> | <a href="#">1</a>  | <a href="#">Secondary 800 MHz band</a> |
| RESERVED                      | <a href="#">65</a> | <a href="#">Reserved Bits</a>          |

11

12    The mobile station shall set each subfield to ‘1’ if the  
 13    corresponding band class (see [2] and [30]) is supported by the  
 14    mobile station; otherwise, the mobile station shall set the  
 15    subfield to ‘0’.

- 16    RESERVED    -    Reserved bits.

17    The mobile station shall set this field to [‘000000’](#).

1 When more band classes are defined, the reserved bits will be  
2 used for the new corresponding subfields. Sufficient octets  
3 will be added to this field to accommodate the new subfields.  
4 All the undefined bits in an additional octet will be reserved  
5 bits.

6 The mobile station shall set all the reserved bits to '0'. If all  
7 bits are set to '0' in an octet and all succeeding octets, the  
8 mobile station shall omit the octet and the succeeding octets.

## 1    2.7.4.14 Power Class Information

2    This information record can be included in a *Status Response Message*, or an *Extended*  
3    *Status Response Message* to return power class information about the mobile station.

4

| Type-Specific Field | Length (bits) |
|---------------------|---------------|
| MAX_EIRP            | 8             |

5

6    MAX\_EIRP    -    Maximum effective isotropic radiated power (EIRP).

7                 The mobile station shall set this field to the minimum EIRP at  
8                 maximum output (in dBW) for the mobile station plus 60 (see  
9                 [11]). When the mobile station output power is expressed in  
10          ERP, it may be converted to EIRP by adding 2 dB to the ERP  
11          value.<sup>2</sup>

---

<sup>2</sup> For example, if a mobile station has a minimum ERP at maximum output of -4 dBW, then the mobile station sets this field to 58.

## 1    2.7.4.15 Operating Mode Information

2    This information record can be included in a *Status Response Message* or an *Extended*  
 3    *Status Response Message* to return operating mode information about the mobile station.

4

5

| Type-Specific Field | Length (bits)  |
|---------------------|----------------|
| OP_MODE_INFO        | 8 × RECORD_LEN |

6

7    OP\_MODE\_INFO – Operating mode information.

8    This field indicates which operating modes are supported by  
 9    the mobile station in the band class for which information is  
 10   requested.

11   This field currently consists of the following subfields which  
 12   are included in the information record in the order shown in  
 13   Table 2.7.4.15-1 for P\_REV\_IN\_USE<sub>S</sub> less than or equal to  
 14   three and in Table 2.7.4.15-2 for P\_REV\_IN\_USE<sub>S</sub> greater  
 15   than three.

16

17   **Table 2.7.4.15-1. OP\_MODE for P\_REV\_IN\_USE<sub>S</sub> Less Than or Equal  
 18   to Three**

| Subfield | Length (bits) | Subfield Description                       |
|----------|---------------|--------------------------------------------|
| OP_MODE0 | 1             | CDMA mode in Band Class 1 and Band Class 4 |
| OP_MODE1 | 1             | CDMA mode in Band Class 0 and Band Class 3 |
| OP_MODE2 | 1             | Analog mode [6]                            |
| OP_MODE3 | 1             | wide analog mode [22]                      |
| OP_MODE4 | 1             | narrow analog mode [22]                    |
| RESERVED | 3             | <a href="#">-Reserved Bits</a>             |

19

**Table 2.7.4.15-2. OP\_MODE for P\_REV\_IN\_USEs Greater Than Three**

| <b>Subfield</b> | <b>Length<br/>(bits)</b> | <b>Subfield Description</b> | <b>Standards</b> |
|-----------------|--------------------------|-----------------------------|------------------|
| OP_MODE0        | 1                        | CDMA mode                   | [5]              |
| OP_MODE1        | 1                        | CDMA mode <sup>3</sup>      | [5]              |
| OP_MODE2        | 1                        | Analog mode                 | [65]             |
| OP_MODE3        | 1                        | Wide analog mode            | [22]             |
| OP_MODE4        | 1                        | Narrow analog mode          | [22]             |
| OP_MODE5        | 1                        | DS-41                       | [32]             |
| OP_MODE6        | 1                        | MC-MAP                      | [31]             |
| RESERVED        | 1                        | -                           | -                |

The mobile station shall set each subfield to '1', if the corresponding operating mode is supported by the mobile station; otherwise, the mobile station shall set the subfield to '0'.

**RESERVED** – Reserved bits.

The mobile station shall set each bit in this field to '0'.

When more operating modes are defined, the reserved bits will be used for the new corresponding subfields. Sufficient octets will also be added to this field to accommodate the corresponding new subfields. All the undefined bits in an additional octet will be reserved bits.

If all bits are set to '0' in an octet and all succeeding octets, the mobile station shall omit the octet and the succeeding octets.

<sup>3</sup> The mobile station shall set OP\_MODE1 ~~as the~~ same as OP\_MODE0.

1    2.7.4.16 Service Option Information

2    This information record can be included in a *Status Response Message*, or an *Extended*  
 3    *Status Response Message* to return service option information about the mobile station.

4

| Type-Specific Field                             | Length (bits) |
|-------------------------------------------------|---------------|
| One or more occurrences of the following field: |               |
| RESERVED                                        | 6             |
| FORWARD_SUPPORT                                 | 1             |
| REVERSE_SUPPORT                                 | 1             |
| SERVICE_OPTION                                  | 16            |

5

6    The mobile station shall include one occurrence of the following record for each service  
 7    option supported:

- 8            RESERVED    – Reserved bits.  
                   The mobile station shall set this field to ‘000000’.
- 9            FORWARD\_SUPPORT    – Support indicator for Forward Traffic Channel.  
                   The mobile station shall set this field to ‘1’ if the service option  
                   specified in the SERVICE\_OPTION field is supported on the  
                   Forward Traffic Channel.
- 10          REVERSE\_SUPPORT    – Support indicator for Reverse Traffic Channel.  
                   The mobile station shall set this field to ‘1’ if the service option  
                   specified in the SERVICE\_OPTION field is supported on the  
                   Reverse Traffic Channel.
- 11          SERVICE\_OPTION    – Service option.  
                   The mobile station shall set this field to the value specified in  
                   [30] for the service option supported.

12

1    2.7.4.17 Multiplex Option Information

2    This information record can be included in a *Status Response Message* or an *Extended*  
3    *Status Response Message* to return multiplex option information about the mobile station.  
4    The mobile station shall include at least one, and not more than six, instances of the record  
5    within the type-specific field according to the following rules:

- 6       • Within the type-specific field, the mobile station may include one instance of a  
7       record in which MULTIPLEX\_OPTION is set to 1. If this instance is included, the  
8       mobile station shall support Multiplex Option 1 for forward and reverse operation.
- 9       • Within the type-specific field, the mobile station may include one instance of a  
10      record in which MULTIPLEX\_OPTION is set to 2. If this instance is included, the  
11      mobile station shall support Multiplex Option 2 for forward and reverse operation.
- 12      • Within the type-specific field, the mobile station may include one instance of a  
13      record in which MULTIPLEX\_OPTION is set to 3, 5, 7, 9, 11, 13, or 15 and with  
14      **FOR\_NUM\_BITSRATES** set to '00000000'. If this instance is included, the mobile  
15      station shall set MULTIPLEX\_OPTION to the highest numbered multiplex option  
16      from the set {3, 5, 7, 9, 11, 13, 15} which the mobile station supports for reverse  
17      operation, and the mobile station shall support all multiplex options less than or  
18      equal to MULTIPLEX\_OPTION from that set for reverse operation.
- 19      • Within the type-specific field, the mobile station may include one instance of a  
20      record in which MULTIPLEX\_OPTION is set to 4, 6, 8, 10, 12, 14, or 16 and with  
21      **FOR\_NUM\_BITSRATES** set to '00000000'. If this instance is included, the mobile  
22      station shall set MULTIPLEX\_OPTION to the highest numbered multiplex option  
23      from the set {4, 6, 8, 10, 12, 14, 16} which the mobile station supports for reverse  
24      operation, and the mobile station shall support all multiplex options less than or  
25      equal to MULTIPLEX\_OPTION from that set for reverse operation.
- 26      • Within the type-specific field, the mobile station may include one instance of a  
27      record in which MULTIPLEX\_OPTION is set to 3, 5, 7, 9, 11, 13, or 15 and with  
28      **REV\_NUM\_BITSRATES** set to '00000000'. If this instance is included, the mobile  
29      station shall set MULTIPLEX\_OPTION to the highest numbered multiplex option  
30      from the set {3, 5, 7, 9, 11, 13, 15} which the mobile station supports for forward  
31      operation, and the mobile station shall support all multiplex options less than or  
32      equal to MULTIPLEX\_OPTION from that set for forward operation.
- 33      • Within the type-specific field, the mobile station may include one instance of a  
34      record in which MULTIPLEX\_OPTION is set to 4, 6, 8, 10, 12, 14, or 16 and with  
35      **REV\_NUM\_BITSRATES** set to '00000000'. If this instance is included, the mobile  
36      station shall set MULTIPLEX\_OPTION to the highest numbered multiplex option  
37      from the set {4, 6, 8, 10, 12, 14, 16} which the mobile station supports for forward  
38      operation, and the mobile station shall support all multiplex options less than or  
39      equal to MULTIPLEX\_OPTION from that set for forward operation.
- 40      • Within the type-specific field, the mobile station shall include at least one instance  
41      of a record in which **FOR\_NUM\_BITSRATES** is set to a value other than '00000000'.

- 1     • Within the type-specific field, the mobile station shall include at least one instance  
 2       of a record in which REV\_RATES is set to a value other than '00000000'.

3

| Type-Specific Field                              | Length (bits) |
|--------------------------------------------------|---------------|
| One or more occurrences of the following record: |               |
| MULTIPLEX_OPTION                                 | 16            |
| FOR_NUM_BITS                                     | 8             |
| REV_NUM_BITS                                     | 8             |

4

5     The mobile station shall include one occurrence of the following record for each specified  
 6       multiplex option according to the previously stated rules:

7       MULTIPLEX\_OPTION   – Supported multiplex option.

8           The mobile station shall set this field to the number of the  
 9           supported multiplex option from the set {1, 2, 3, 4, 5, 6, 7, 8,  
 10          9, 10, 11, 12, 13, 14, 15, 16} (e.g., 1 corresponds to Multiplex  
 11          Option 1).

12       FOR\_NUM\_BITS   – Forward Traffic Channel number of bits per frame.

13           If FOR\_NUM\_BITS = '00000000', then the specified multiplex  
 14           option in this record shall indicate the supported multiplex  
 15           option for the Reverse Traffic Channel only. In this case, no  
 16           further interpretation of the FOR\_NUM\_BITS field shall be  
 17           made. The mobile station shall not set both FOR\_NUM\_BITS  
 18           and REV\_NUM\_BITS equal to '00000000' in the same  
 19           information record.

20           If MULTIPLEX\_OPTION is equal to 1, 3, 5, 7, 9, 11, 13, or 15,  
 21           this field consists of the subfields specified in Table 2.7.4.17-1  
 22           which are included in the information record in the order  
 23           shown in the table. The subfields in Table 2.7.4.17-1 refer to  
 24           the number of bits per frame supported on the Fundamental  
 25           Code-Channel of the Forward Traffic Channel.

1  
2      **Table 2.7.4.17-1. Forward Fundamental Traffic Channel**  
Number of Bits per Frame for Forward Multiplex Option 1

| Subfield     | Length (bits) | Subfield Description          |
|--------------|---------------|-------------------------------|
| RS1_9600_FOR | 1             | 172 bits per F-FCH frame      |
| RS1_4800_FOR | 1             | 80 bits per F-FCH             |
| RS1_2400_FOR | 1             | 40 bits per F-FCH frame       |
| RS1_1200_FOR | 1             | 16 bits per F-FCH frame       |
| RESERVED     | 4             | <a href="#">Reserved Bits</a> |

3  
4      If MULTIPLEX\_OPTION is equal to 2, 4, 6, 8, 10, 12, 14, or 16,  
5      this field consists of the subfields specified in Table 2.7.4.17-2  
6      which are included in the information record in the order  
7      shown in the table. The subfields in Table 2.7.4.17-2 refer to  
8      the number of bits per frame supported on the Fundamental  
9      ~~Code~~-Channel of the Forward Traffic Channel.

10  
11     **Table 2.7.4.17-2. Forward Fundamental Traffic Channel**  
12     Number of Bits per Frame for [Forward Multiplex Option](#)  
13     [MO\\_FOR\\_FCH](#)=equal to 2

| Subfield      | Length (bits) | Subfield Description          |
|---------------|---------------|-------------------------------|
| RS2_14400_FOR | 1             | 267 bits per F-FCH frame      |
| RS2_7200_FOR  | 1             | 125 bits per F-FCH frame      |
| RS2_3600_FOR  | 1             | 55 bits per F-FCH frame       |
| RS2_1800_FOR  | 1             | 21 bits per F-FCH frame       |
| RESERVED      | 4             | <a href="#">Reserved Bits</a> |

14  
15      The mobile station shall set the subfields specified in Tables  
16      2.7.4.17-1 and 2.7.4.17-2, corresponding to the Forward  
17      Traffic Channel number of bits per frame supported by the  
18      mobile station for this multiplex option to '1', and shall set the  
19      remaining subfields to '0'. The mobile station shall set  
20      RESERVED to '0000'.

- 21      REV\_NUM\_BITS    - Reverse Traffic Channel transmission rates.  
22  
23      If REV\_NUM\_BITS is equal to '00000000', then the specified  
24      multiplex option in this record indicate the supported  
25      multiplex option for the Forward Traffic Channel only. In this  
26      case, no further interpretation of the REV\_NUM\_BITS field  
27      shall be made. The mobile station shall not set both  
28      FOR\_NUM\_BITS and REV\_NUM\_BITS equal to '00000000' in  
the same information record.

If MULTIPLEX\_OPTION is equal to 1, 3, 5, 7, 9, 11, 13, or 15, this field consists of the subfields specified in Table 2.7.4.17-3 which are included in the information record in the order shown in the table. The subfields in Table 2.7.4.17-3 refer to the number of bits per frame supported on the Fundamental [Code](#)-Channel of the Reverse Traffic Channel.

**Table 2.7.4.17-3. Reverse Fundamental Traffic Channel Number of Bits per Frame for [Reverse Multiplex Option MO\\_REV\\_FCH](#) equal to 1**

| Subfield     | Length (bits) | Subfield Description          |
|--------------|---------------|-------------------------------|
| RS1_9600_REV | 1             | 172 bits per R-FCH frame      |
| RS1_4800_REV | 1             | 80 bits per R-FCH frame       |
| RS1_2400_REV | 1             | 40 bits per R-FCH frame       |
| RS1_1200_REV | 1             | 16 bits per R-FCH frame       |
| RESERVED     | 4             | <a href="#">Reserved Bits</a> |

If MULTIPLEX\_OPTION is equal to 2, 4, 6, 8, 10, 12, 14, or 16, this field consists of the subfields specified in Table 2.7.4.17-4 which are included in the information record in the order shown in the table. The subfields in Table 2.7.4.17-4 refer to the number of bits per frame supported on the Fundamental [Code](#)-Channel of the Reverse Traffic Channel.

**Table 2.7.4.17-4. Reverse Fundamental Traffic Channel Number of Bits per Frame for [Reverse Multiplex Option MO\\_REV\\_FCH](#) equal to 21**

| Subfield      | Length (bits) | Subfield Description          |
|---------------|---------------|-------------------------------|
| RS2_14400_REV | 1             | 267 bits per R-FCH frame      |
| RS2_7200_REV  | 1             | 125 bits per R-FCH frame      |
| RS2_3600_REV  | 1             | 55 bits per R-FCH frame       |
| RS2_1800_REV  | 1             | 21 bits per R-FCH frame       |
| RESERVED      | 4             | <a href="#">Reserved Bits</a> |

1           The mobile station shall set the subfields specified in Table  
2           2.7.4.17-3 and Table 2.7.4.17-4 corresponding to the Reverse  
3           Traffic Channel transmission number of bits per frame  
4           supported by the mobile station for this multiplex option to '1',  
5           and shall set the remaining subfields to '0'. The mobile  
6           station shall set RESERVED to '0000'.

1    2.7.4.18 Service Configuration

2    The format of the Service Configuration information record is defined in 3.7.5.7.

3

## 1    2.7.4.19 Called Party Subaddress

2    This information record identifies the called party subaddress.

| Type-Specific Field | Length (bits) |
|---------------------|---------------|
| EXTENSION_BIT       | 1             |
| SUBADDRESS_TYPE     | 3             |
| ODD/EVEN_INDICATOR  | 1             |
| RESERVED            | 3             |

Zero or more occurrences of the following field:

|       |   |
|-------|---|
| CHARi | 8 |
|-------|---|

3

4    EXTENSION\_BIT – The extension bit.

5                         The mobile station shall set this field to '1'.

6    SUBADDRESS\_TYPE – Type of subaddress.

7                         The mobile station shall set this field to the  
8                         SUBADDRESS\_TYPE value shown in Table 2.7.4.19-1  
9                         corresponding to the type of the subaddress, as defined in [7],  
10                        Section 4.5.8.

11

12                        **Table 2.7.4.19-1. Subaddress Types**

| Description                                                               | SUBADDRESS<br>TYPE<br>(binary) |
|---------------------------------------------------------------------------|--------------------------------|
| NSAP ( <a href="#">CCITT Recommendation X.213/ISO 8348 AD2 see [34]</a> ) | 000                            |
| User specified                                                            | 010                            |
| Reserved                                                                  | others                         |

13

14    ODD/EVEN\_INDICATOR – The indicator of odd/even bits.

15                         The mobile station shall set this field to the  
16                         ODD/EVEN\_INDICATOR value shown in Table 2.7.4.19-2  
17                         corresponding to the indicator of even/odd bits, as defined in  
18                         [7], Section 4.5.8. This field is only used when the type of  
19                         subaddress is "User specified" and the coding is BCD.

20

**Table 2.7.4.19-2. Odd/Even Indicator**

| <b>Description</b>             | <b>ODD/EVEN INDICATOR<br/>(binary)</b> |
|--------------------------------|----------------------------------------|
| Even number of address signals | 0                                      |
| Odd number of address signals  | 1                                      |

- RESERVED – Reserved bits.  
The mobile station shall set this field to '000'.
- CHARi – Character.  
The mobile station shall include one occurrence of this field for each character in the called party subaddress.  
When the SUBADDRESS\_TYPE field is equal to '000', the NSAP address shall be encoded using the preferred binary encoding specified in [CCITT Recommendation X.213 or ISO 8348-AD2\[35\]](#).  
When the SUBADDRESS\_TYPE field is set to '010', the user-specified subaddress field is encoded according to the user specification, subject to a maximum length of 20 octets. When interworking with CCITT Recommendation X.25 networks, BCD coding should be applied.

## 1    2.7.4.20 Calling Party Subaddress

2    This information record identifies the calling party subaddress.

| Type-Specific Field | Length (bits) |
|---------------------|---------------|
| EXTENSION_BIT       | 1             |
| SUBADDRESS_TYPE     | 3             |
| ODD/EVEN_INDICATOR  | 1             |
| RESERVED            | 3             |

Zero or more occurrences of the following field:

|       |   |
|-------|---|
| CHARi | 8 |
|-------|---|

3

4    EXTENSION\_BIT - The extension bit.

5                         The mobile station shall set this field to '1'.

6    SUBADDRESS\_TYPE - Type of subaddress.

7                         The mobile station shall set this field to the  
8                         SUBADDRESS\_TYPE value shown in Table 2.7.4.19-1  
9                         corresponding to the type of the subaddress, as defined in [7],  
10                        Section 4.5.10.

11   ODD/EVEN\_INDICATOR - The indicator of odd/even bits.

12                        The mobile station shall set this field to the  
13                        ODD/EVEN\_INDICATOR value shown in Table 2.7.4.19-2  
14                        corresponding to the indicator of even/odd bits, as defined in  
15                        [7], Section 4.5.10. It is only used when the type of  
16                        subaddress is "User specified" and the coding is BCD.

17                        RESERVED - Reserved bits.

18                        The mobile station shall set this field to '000'.

19                        CHARi - Character.

20                        The mobile station shall include one occurrence of this field  
21                        for each character in the calling party subaddress.22                        When the SUBADDRESS\_TYPE field is equal to '000', the  
23                        NSAP address shall be encoded using the preferred binary  
24                        encoding specified in [CCITT Recommendation X.213 or ISO 8348 AD2\[35\]](#).26                        When the SUBADDRESS\_TYPE field is set to '010', user-  
27                        specified subaddress field is encoded according to the user  
28                        specification, subject to a maximum length of 20 octets.  
29                        When interworking with [CCITT Recommendation X.25\[36\]](#)  
30                        networks, BCD coding should be applied.

## 1    2.7.4.21 Connected Subaddress

2    This information record identifies the subaddress of the responding party.

3

| Type-Specific Field | Length (bits) |
|---------------------|---------------|
| EXTENSION_BIT       | 1             |
| SUBADDRESS_TYPE     | 3             |
| ODD/EVEN_INDICATOR  | 1             |
| RESERVED            | 3             |

Zero or more occurrences of the following field:

|       |   |
|-------|---|
| CHARi | 8 |
|-------|---|

4

5    EXTENSION\_BIT

- The extension bit.

6

The mobile station shall set this field to ‘1’.

7    SUBADDRESS\_TYPE

- Type of subaddress.

8

The mobile station shall set this field to the SUBADDRESS\_TYPE value shown in Table 2.7.4.19-1 corresponding to the type of the subaddress, as defined in [7], Section 4.5.14.

9

10

11

12    ODD/EVEN\_INDICATOR

- The indicator of odd/even bits.

13

14

15

16

17

The mobile station shall set this field to the ODD/EVEN\_INDICATOR value shown in Table 2.7.4.19-2 corresponding to the indicator of even/odd bits, as defined in [7], Section 4.5.14. It is only used when the type of subaddress is “User specified” and the coding is BCD.

18

RESERVED

- Reserved bits.

19

The mobile station shall set this field to ‘000’.

20

CHARi

- Character.

21

22

The mobile station shall include one occurrence of this field for each character in the connected subaddress.

23

24

25

26

When the SUBADDRESS\_TYPE field is equal to ‘000’, the NSAP address shall be encoded using the preferred binary encoding specified in [CCITT Recommendation X.213 or ISO 8348-AD2\[35\]](#).

27

28

29

30

31

When the SUBADDRESS\_TYPE field is set to ‘010’, user-specified subaddress field is encoded according to the user specification, subject to a maximum length of 20 octets. When interworking with [CCITT Recommendation X.25\[36\]](#) networks, BCD coding should be applied.

## 1    2.7.4.22 Power Control Information

2    This information record can be included in a *Status Response Message*, or an *Extended*  
 3    *Status Response Message* to return the minimum power control step size supported by the  
 4    mobile station (see 2.1.2.3.2).

| Type-Specific Field | Length (bits) |
|---------------------|---------------|
| MIN_PWR_CNTL_STEP   | 3             |
| RESERVED            | 5             |

5

6    MIN\_PWR\_CNTL\_STEP – Minimum power control step size

7                 The mobile station shall set this field to the PWR\_CNTL\_STEP  
 8                 value associated with the minimum closed loop power control  
 9                 step size shown in Table 3.7.3.3.2.25-1 that the mobile station  
 10          supports.

11          RESERVED – Reserved bits.

12                 The mobile station shall set this field to ‘00000’.

#### 2.7.4.23 IMSI\_M

This information record can be included in a *Status Response Message*, or an *Extended Status Response Message* to return the mobile station's  $\text{IMSI}_M$ .

| Type-Specific Field | Length (bits) |
|---------------------|---------------|
| IMSI_M_CLASS        | 1             |
| IMSI_M_ADDR_NUM     | 3             |
| MCC_M               | 10            |
| IMSI_M_11_12        | 7             |
| IMSI_M_S            | 34            |
| RESERVED            | 1             |

## 1    2.7.4.24 IMSI\_T

2    This information record can be included in a *Status Response Message*, or an *Extended*  
 3    *Status Response Message* to return the mobile station's IMSI\_T.

| Type-Specific Field | Length (bits) |
|---------------------|---------------|
| IMSI_T_CLASS        | 1             |
| IMSI_T_ADDR_NUM     | 3             |
| MCC_T               | 10            |
| IMSI_T_11_12        | 7             |
| IMSI_T_S            | 34            |
| RESERVED            | 1             |

- 4
- 5    IMSI\_T\_CLASS    -    IMSI\_T Class assignment of the mobile station.  
 6                      If the mobile station's IMSI\_T is a class 0 IMSI, the mobile  
 7                      station shall set this field to '0'; otherwise, the mobile station  
 8                      shall set this field to '1'.
- 9    IMSI\_T\_ADDR\_NUM    -    Number of IMSI\_T<sub>p</sub> address digits.  
 10                     If the mobile station's IMSI\_T is a class 1 IMSI, the mobile  
 11                     station shall set this field to four less than the number of  
 12                     digits in the NMSI; otherwise, the mobile station shall set this  
 13                     field to '000'.
- 14    MCC\_T    -    Mobile Country Code of the IMSI\_T.  
 15                     The mobile station shall set this field to the MCC\_T<sub>p</sub>.  
 16                     See 2.3.1.
- 17    IMSI\_T\_11\_12    -    The 11th and 12th digits of the IMSI\_T<sub>p</sub>.  
 18                     The mobile station shall set this field to IMSI\_T\_11\_12<sub>p</sub>.  
 19                     See 2.3.1.
- 20    IMSI\_T\_S    -    Last ten digits of the IMSI\_T<sub>p</sub>.  
 21                     The mobile station shall set this field to IMSI\_T\_S<sub>p</sub>. See 2.3.1.
- 22    RESERVED    -    Reserved bit.  
 23                     The mobile station shall set this field to '0'.

1    2.7.4.25 Capability Information

2    This information record identifies whether the following optional or MOB\_P\_REV dependent  
3    features are supported by the mobile station.

4

| Type-Specific Field | Length (bits) |
|---------------------|---------------|
| ACCESS_ENTRY_HO     | 1             |
| ACCESS_PROBE_HO     | 1             |
| ANALOG_SEARCH       | 1             |
| HOPPING_BEACON      | 1             |
| MAHHO               | 1             |
| PUF                 | 1             |
| ANALOG_553A         | 1             |
| QPCH                | 1             |
| SLOTTED_TIMER       | 1             |
| CHS_SUPPORTED       | 1             |
| GATING_RATE_SET     | 0 or 2        |
| EXT_CAP_INCLUDED    | 1             |

If EXT\_CAP\_INCLUDED is set to '1', include the following two-field record:

|      |                        |
|------|------------------------|
| MABO | <a href="#">0 or 1</a> |
| SDB  | <a href="#">0 or 1</a> |

|                      |                  |
|----------------------|------------------|
| RLP_INFO_LEN         | 3                |
| RLP_BLOB             | 8 X RLP_INFO_LEN |
| FLEX_SUPPORTED       | 1                |
| F_FCH_FLEX_SUPPORTED | 0 or 1           |
| R_FCH_FLEX_SUPPORTED | 0 or 1           |

(continues on next page)

5

1

| Type-Specific Field                     | Length (bits)     |
|-----------------------------------------|-------------------|
| F_DCCH_FLEX_SUPPORTED                   | 0 or 1            |
| R_DCCH_FLEX_SUPPORTED                   | 0 or 1            |
| F_SCH_FLEX_SUPPORTED                    | 0 or 1            |
| R_SCH_FLEX_SUPPORTED                    | 0 or 1            |
| VAR_SUPPORTED                           | 1                 |
| F_SCH_VAR_SUPPORTED                     | 0 or 1            |
| R_SCH_VAR_SUPPORTED                     | 0 or 1            |
| MAX_SUM_NUM_BITS_C                      | 0 or 16           |
| MAX_SUM_NUM_BITS_T                      | 0 or 16           |
| CS_SUPPORTED                            | 1                 |
| <a href="#">F SCH LTU TAB SUPPORTED</a> | <a href="#">1</a> |
| <a href="#">R SCH LTU TAB SUPPORTED</a> | <a href="#">1</a> |
| RESERVED                                | 0 - 7 (as needed) |

2

- 3      ACCESS\_ENTRY\_HO    - Access Entry Handoff Support.  
 4      This field identifies the mobile station's support for access  
 5      entry handoff (see 2.6.2.3). The mobile station shall set this  
 6      field to '1' if access entry handoff is supported; otherwise, the  
 7      mobile station shall set this field to '0'.  
 8      ACCESS\_PROBE\_HO    - Access Probe Handoff Support.  
 9      This field identifies the mobile station's support for access  
 10     probe handoff (see 2.6.3.1.3.3). The mobile station shall set this  
 11     field to '1' if access probe handoff is supported; otherwise,  
 12     the mobile station shall set this field to '0'.  
 13     ANALOG\_SEARCH    - Analog Search Support.  
 14     This field identifies the mobile station's support for analog  
 15     searching (see 2.6.6.2.10). The mobile station shall set this  
 16     field to '1' if analog searching is supported; otherwise, the  
 17     mobile station shall set this field to '0'.  
 18     HOPPING\_BEACON    - Hopping Beacon Support.  
 19     This field identifies the mobile station's support for hopping pilot  
 20     beacons. The mobile station shall set this field to '1' if hopping  
 21     pilot beacons are supported; otherwise, this field shall be set to  
 22     '0'.

- 1           MAHHO    – Mobile Assisted Hard Handoff Support.  
 2           This field identifies the mobile station's support for mobile  
 3           assisted hard handoff. The mobile station shall set this field to  
 4           ‘1’.
- 5           PUF      – Location Power Up Function Support.  
 6           This field identifies the mobile station's support for location  
 7           power up function (see 2.6.4.1.7).  
 8           If MOB\_P\_REV<sub>p</sub> is equal to ‘00000101’, the mobile station shall  
 9           set this field to ‘1’; otherwise the mobile station shall set this  
 10          field as follows:  
 11          If the mobile station supports location power up function, the  
 12          mobile station shall set this field to ‘1’, otherwise, the mobile  
 13          station shall set this field to ‘0’.
- 14          ANALOG\_553A – Analog Support.  
 15          This field identifies the mobile station's compatibility with [12].  
 16          The mobile station shall set this field to ‘1’.
- 17          QPCH     – Quick Paging Channel Support.  
 18          This field identifies the mobile station's support for the Quick  
 19          Paging Channel. The mobile station shall set this field to ‘1’ if  
 20          the Quick Paging Channel is supported; otherwise, the mobile  
 21          station shall set this field to ‘0’.
- 22          SLOTTED\_TIMER – Slotted Timer Support.  
 23          This field identifies the mobile station's support for the Slotted  
 24          Timer. The mobile station shall set this field to ‘1’ if the Slotted  
 25          Timer is supported; otherwise, the mobile station shall set this  
 26          field to ‘0’.
- 27          CHS\_SUPPORTED – Control Hold Mode supported indicator.  
 28          The mobile station shall set this field to ‘1’ to indicate that the  
 29          mobile station supports the Control Hold Mode; otherwise, the  
 30          mobile station shall set this field to ‘0’.
- 31          GATING\_RATE\_SET – Set of supported Reverse Pilot gating rates.  
 32          If CHS\_SUPPORTED is included and is set to ‘1’, the mobile  
 33          station shall set this field to value shown in Table 2.7.4.25-1  
 34          corresponding to the set of supported reverse pilot gating  
 35          rates; otherwise the mobile station shall omit this field.

36

1  
Table 2.7.4.25-1. Set of supported Reverse Pilot Gating Rates

| GATING_RATE_SET field (binary) | Gating Rates Capability                         |
|--------------------------------|-------------------------------------------------|
| 00                             | Gating rates 1                                  |
| 01                             | Gating rates 1 and $\frac{1}{2}$                |
| 10                             | Gating rates 1, $\frac{1}{2}$ and $\frac{1}{4}$ |
| 11                             | Reserved                                        |

- 2
- 3 EXT\_CAP\_INCLUDED - Extended Capabilities Included indicator.  
 4 The mobile station shall set this field to '1' to indicate that  
 5 extended capability indicators are included in this record;  
 6 otherwise, the mobile station shall set this field to '0'.
- 7 MABO - Mobile Assisted Burst Operation capability indicator.  
 8 If EXT\_CAP\_INCLUDED is set to '0', the mobile station shall omit  
 9 this field; otherwise, the mobile station shall include this field  
 10 and set it as follows:  
 11 ~~If EXT\_CAP\_INCLUDED is set to '1', t~~The mobile station shall set  
 12 this field to '1' ~~to indicate that if~~ it supports the Mobile Assisted  
 13 Burst Operation capability; otherwise, the mobile station shall  
 14 set this field to '0'.
- 15 SDB - Short Data Burst supported indicator.  
 16 If EXT\_CAP\_INCLUDED is set to '0', the mobile station shall  
 17 omit this field; otherwise, the mobile station shall include this  
 18 field and set it as follows:  
 19 ~~If EXT\_CAP\_INCLUDED is set to '1', t~~The mobile station shall  
 20 set this field to '1' ~~to indicate that if~~ it supports Short Data  
 21 Burst capability; otherwise, the mobile station shall set this  
 22 field to '0'.
- 23 RLP\_INFO\_LEN - RLP capability information length.  
 24 The mobile station shall set this field to '000' if the RLP\_BLOB  
 25 field is not included in this record; otherwise, it shall set this  
 26 field to the size of the RLP\_BLOB field in integer number of  
 27 octets.
- 28 RLP\_BLOB - Radio Link Protocol information block of bits.  
 29 If the RLP\_INFO\_LEN field is set to '000', the mobile station  
 30 shall omit this field; otherwise, the mobile station shall set  
 31 this field as follows:  
 32 The mobile station shall set this field to the Radio Link  
 33 Protocol information block of bits.
- 34 FLEX\_SUPPORTED - Flexible rate feature supported indicator.

1                   The mobile station shall set this field to '1' if it supports the  
 2                   flexible rate feature (the capability to support a non-listed  
 3                   frame format) on any of the forward or reverse Fundamental,  
 4                   Supplemental or Dedicated Control channels; otherwise, the  
 5                   mobile station shall set this field to '0'.  
 6

7                   **F\_FCH\_FLEX-**

- 8                   **\_SUPPORTED** – Forward Fundamental channel flexible rate feature supported  
 9                   indicator.

10                  The mobile station shall include this field only if  
 11                  FLEX\_SUPPORTED is equal to '1'. If this field is included, the  
 12                  mobile station shall set this field to '1' if it supports the  
 13                  flexible rate feature for the Forward Fundamental Channel;  
 14                  otherwise, the mobile station shall set this field to '0'.

15                  **R\_FCH\_FLEX-**

- 16                  **\_SUPPORTED** – Reverse Fundamental channel flexible rate feature supported  
 17                  indicator.

18                  The mobile station shall include this field only if  
 19                  FLEX\_SUPPORTED is equal to '1'. If this field is included, the  
 20                  mobile station shall set this field to '1' if it supports the  
 21                  flexible rate feature for the Reverse Fundamental Channel;  
 22                  otherwise, the mobile station shall set this field to '0'.

23                  **F\_DCCH\_FLEX-**

- 24                  **\_SUPPORTED** – Forward Dedicated Control channel flexible rate feature  
 25                  supported indicator.

26                  The mobile station shall include this field only if  
 27                  FLEX\_SUPPORTED is equal to '1'. If this field is included, the  
 28                  mobile station shall set this field to '1' if it supports the  
 29                  flexible rate feature for the Forward Dedicated Control  
 30                  Channel; otherwise, the mobile station shall set this field to  
 31                  '0'.

32                  **R\_DCCH\_FLEX-**

- 33                  **\_SUPPORTED** – Reverse Dedicated Control channel flexible rate feature  
 34                  supported indicator.

35                  The mobile station shall include this field only if  
 36                  FLEX\_SUPPORTED is equal to '1'. If this field is included, the  
 37                  mobile station shall set this field to '1' if it supports the  
 38                  flexible rate feature for the Reverse Dedicated Control  
 39                  Channel; otherwise, the mobile station shall set this field to  
 40                  '0'.

41

42                  **F\_SCH\_FLEX-**

- 43                  **\_SUPPORTED** – Forward Supplemental channel flexible rate feature supported  
 44                  indicator.

The mobile station shall include this field only if FLEX\_SUPPORTED is equal to '1'. If this field is included, the mobile station shall set this field to '1' if it supports the flexible rate feature for the Forward Supplemental Channel; otherwise, the mobile station shall set this field to '0'.

## R\_SCH\_FLEX-

- Reverse Supplemental channel flexible rate feature supported indicator.

The mobile station shall include this field only if FLEX\_SUPPORTED is equal to '1'. If this field is included, the mobile station shall set this field to '1' if it supports the flexible rate feature for the Reverse Supplemental Channel; otherwise, the mobile station shall set this field to '0'.

## VAR\_SUPPORTED

- Variable rate feature supported indicator.

The mobile station shall set this field to '1' if it supports the variable rate feature (the capability to support rate determination) on any of the forward or reverse Supplemental ~~or Dedicated Control~~ channels; otherwise, the mobile station shall set this field to '0'.

F\_SCH\_VAR-

- SUPPORTED – Forward Supplemental Channel Variable Rate supported indicator.

The mobile station shall include this field only if FLEXVAR\_SUPPORTED is equal to '1'. If this field is included, the mobile station shall set this field to '1' if it supports the rate determination feature on the Forward Supplemental Channels.

R\_SCH\_VAR-

- SUPPORTED – Reverse Supplemental Channel Variable Rate supported indicator.

The mobile station shall include this field only if FLEXVAR\_SUPPORTED is equal to '1'. If this field is included, the mobile station shall set this field to '1' if it supports the variable\_rate\_determination feature on the Reverse Supplemental Channels.

## MAX\_SUM-

- Maximum sum of number of bits corresponding to Convolutional rates in the variable rate set

The mobile station shall include this field only if F\_SCH\_VAR\_SUPPORTED is equal to '1'. If this field is included, the mobile station shall set this field to the maximum of the sum of possible information bits per 20 ms corresponding to the Convolutional Code rates in the Variable Rate Set for a Forward Supplemental Channel below which the mobile station is capable of performing rate determination on the forward supplemental channel when Convolutional coding is used.

|    |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|----|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | <b>MAX_SUM-</b>             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 1  | <b>_NUM_BITS_T</b>          | - Maximum sum of number of bits corresponding to Turbo Code rates in the variable rate set                                                                                                                                                                                                                                                                                                                                                                               |
| 2  |                             | The mobile station shall include this field only if F_SCH_VAR_SUPPORTED is equal to '1'. If this field is included, the mobile station shall set this field to the maximum of the sum of possible information bits per 20 ms corresponding to the Turbo Code rates in the Variable Rate Set for a Forward Supplemental Channel below which the mobile station is capable of performing rate determination on the forward supplemental channel when Turbo coding is used. |
| 3  |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 4  |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 5  |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 6  |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 7  |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 8  |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 9  |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 10 |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 11 |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 12 | <b>CS_SUPPORTED</b>         | - Concurrent Services supported indicator.                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 13 |                             | If the mobile station supports concurrent services, the mobile station shall set this field to '1'; otherwise, the mobile station shall set this field to '0'.                                                                                                                                                                                                                                                                                                           |
| 14 |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 15 |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 16 | <b><u>F SCH LTU TAB</u></b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 17 | <b>SUPPORTED</b>            | - <u>Forward Supplemental Channel Downloadable LTU tables supported indicator.</u>                                                                                                                                                                                                                                                                                                                                                                                       |
| 18 |                             | <u>If the mobile station supports downloadable LTU Tables for Forward Supplemental Channel, the mobile station shall set this field to '1'; otherwise, the mobile station shall set this field to '0'.</u>                                                                                                                                                                                                                                                               |
| 19 |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 20 |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 21 |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 22 |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 23 | <b><u>R SCH LTU TAB</u></b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 24 | <b>SUPPORTED</b>            | - <u>Reverse Supplemental Channel Downloadable LTU tables supported indicator.</u>                                                                                                                                                                                                                                                                                                                                                                                       |
| 25 |                             | <u>If the mobile station supports downloadable LTU Tables for Reverse Supplemental Channel, the mobile station shall set this field to '1'; otherwise, the mobile station shall set this field to '0'.</u>                                                                                                                                                                                                                                                               |
| 26 |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 27 |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 28 |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 29 |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 30 | <b>RESERVED</b>             | - Reserved bits.                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 31 |                             | The mobile station shall add reserved bits as needed in order to make the length of the entire information record equal to an integer number of octets. The mobile station shall set these bits to '0'.                                                                                                                                                                                                                                                                  |
| 32 |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 33 |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 34 |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

1    2.7.4.26 Extended Record Type - International

2    The use of this record type is country-specific. The first ten bits of the type-specific fields  
3    shall include the Mobile Country Code (MCC) associated with the national standards  
4    organization administering the use of the record type. Encoding of the MCC shall be as  
5    specified in 2.3.1.3. The remaining six bits of the first two octets of the type-specific fields  
6    shall be used to specify the country-specific record type.

1    2.7.4.27 Channel Configuration Capability Information

2    This information record can be included in a *Status Response Message* or an *Extended*  
 3    *Status Response Message* to return channel configuration capability information about the  
 4    mobile station.

5

| Type-Specific Field                           | Length (bits)     |
|-----------------------------------------------|-------------------|
| OTD_SUPPORTED                                 | 1                 |
| FCH_SUPPORTED                                 | 1                 |
| FCH Type-specific fields                      | 0 or Variable     |
| DCCH_SUPPORTED                                | 1                 |
| DCCH Type-specific fields                     | 0 or Variable     |
| FOR_SCH_SUPPORTED                             | 1                 |
| FOR_SCH Type-specific fields                  | 0 or Variable     |
| REV_SCH_SUPPORTED                             | 1                 |
| REV_SCH Type-specific fields                  | 0 or Variable     |
| <u>NONOCTET_ALIGNED_DATA</u><br><u>RVED 1</u> | <u>0 or 2 +</u>   |
| <u>OCTET_ALIGNED_DATA</u>                     | <u>4</u>          |
| STS_SUPPORTED                                 | 1                 |
| 3X_CCH_SUPPORTED                              | 1                 |
| RESERVED                                      | 0 - 7 (as needed) |

6

7    OTD\_SUPPORTED    –    OTD supported indicator.

8    The mobile station shall set this field to ‘1’ if the mobile  
 9    station supports orthogonal transmission diversity; otherwise,  
 10   the mobile station shall set this field to ‘0’.

11   FCH\_SUPPORTED    –    Fundamental Channel supported indicator.

12   The mobile station shall set this field to ‘1’, if the mobile  
 13   station supports the Fundamental Channel; otherwise, the  
 14   mobile station shall set this field to ‘0’.

15   FCH Type-specific fields    –    Fundamental Channel configuration capability information.

16   If the FCH\_SUPPORTED field is set to ‘1’, the mobile station  
 17   shall include this field and set it as described in 2.7.4.27.1;  
 18   otherwise the mobile station shall omit this field.

19   DCCH\_SUPPORTED    –    Dedicated Control Channel supported indicator.

The mobile station shall set this field to '1' if the mobile station supports the Dedicated Control Channel; otherwise, the mobile station shall set this field to '0'.

- |                                         |                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DCCH Type-specific fields               | <ul style="list-style-type: none"> <li>- Fundamental Channel configuration capability information.<br/>If the DCCH_SUPPORTED field is set to '1', the mobile station shall include this field and set it as described in 2.7.4.27.2; otherwise the mobile station shall omit this field.</li> </ul>                                                                                                                    |
| FOR_SCH_SUPPORTED                       | <ul style="list-style-type: none"> <li>- Forward Supplemental Channel supported indicator.<br/>The mobile station shall set this field to '1' if the mobile station supports the Forward Supplemental Channel; otherwise, the mobile station shall set this field to '0'.</li> </ul>                                                                                                                                   |
| FOR_SCH Type-specific fields            | <ul style="list-style-type: none"> <li>- Forward Supplemental Channel Configuration Capability Information.<br/>If the FOR_SCH_SUPPORTED field is set to '1', the mobile station shall include this field and set it as described in 2.7.4.27.3; otherwise the mobile station shall omit this field.</li> </ul>                                                                                                        |
| REV_SCH_SUPPORTED                       | <ul style="list-style-type: none"> <li>- Reverse Supplemental Channel supported indicator.<br/>The mobile station shall set this field to '1' if the mobile station supports the Reverse Supplemental Channel; otherwise, the mobile station shall set this field to '0'.</li> </ul>                                                                                                                                   |
| REV_SCH Type-specific fields            | <ul style="list-style-type: none"> <li>- Reverse Supplemental Channel Configuration capability information.<br/>If the REV_SCH_SUPPORTED field is set to '1', the mobile station shall include this field and set it as described in 2.7.4.27.4; otherwise the mobile station shall omit this field.</li> </ul>                                                                                                        |
| <u>NONOCTET_ALIGNED_-DATARESERVED_1</u> | <ul style="list-style-type: none"> <li>- <u>Non-octet Aligned Data Block supported indicator.</u> <u>Reserved bits.</u><br/>If both the FOR_SCH_SUPPORTED and REV_SCH_SUPPORTED fields are set to '0', the mobile station shall omit this field. Otherwise, the mobile station shall <u>include this field and set this field to '1' if it supports use of non-octet aligned data blocks on a SCH '00'.</u></li> </ul> |
| <u>OCTET_ALIGNED_DATA</u>               | <ul style="list-style-type: none"> <li>- <u>Octet Aligned Data Block supported indicator.</u><br/><u>If both the FOR_SCH_SUPPORTED and REV_SCH_SUPPORTED fields are set to '0', the mobile station shall omit this field. Otherwise, the mobile station shall set this field to '1' if it supports use of octet aligned data blocks on a SCH.</u></li> </ul>                                                           |
| STS_SUPPORTED                           | <ul style="list-style-type: none"> <li>- STS supported indicator.</li> </ul>                                                                                                                                                                                                                                                                                                                                           |

1                   The mobile station shall set this field to '1' if the mobile  
2                   station supports Space Time Spreading Transmit Diversity;  
3                   otherwise, the mobile station shall set this field to '0'.  
4

- 5                   3X\_CCH\_SUPPORTED     – 3X Common Channel supported.  
6

7                   The mobile station shall set this field to '1' if the mobile  
8                   station supports the Spreading Rate 3 common channels (3X  
BCCH, 3X F-CCCH, and 3X R-EACH); otherwise, the mobile  
station shall set this field to '0'.  
9

- 10                  RESERVED             – Reserved bits.  
11

12                  The mobile station shall add reserved bits as needed in order  
13                  to make the length of the entire information record equal to an  
integer number of octets. The mobile station shall set these  
bits to '0'.  
14

## 1    2.7.4.27.1 FCH Type-specific Fields

2    The Fundamental Channel configuration capability information included in the FCH Type-  
 3    specific fields contains the following subfields:

4

|                |                                 |
|----------------|---------------------------------|
| FCH_FRAME_SIZE | 1                               |
| FOR_FCH_LEN    | 3                               |
| FOR_FCH_RC_MAP | $3 \times \text{FOR\_FCH\_LEN}$ |
| REV_FCH_LEN    | 3                               |
| REV_FCH_RC_MAP | $3 \times \text{REV\_FCH\_LEN}$ |

5

6    FCH\_FRAME\_SIZE    -    Fundamental Channel Frame Size capability indicator.

7                         If in addition to the 20 ms frame size the mobile station also  
 8                         supports the 5 ms frame size on the Fundamental Channel,  
 9                         the mobile station shall set this field to '1'; otherwise, the  
 10                       mobile station shall set this field to '0'.

11                  FOR\_FCH\_LEN    -    Forward Fundamental Channel Configuration information  
 12                       length.

13                       The mobile station shall set this field to the number of 3 bit  
 14                       units required to specify the length, in bits, of the  
 15                       FOR\_FCH\_RC\_MAP field.

16                  FOR\_FCH\_RC\_MAP    -    Forward Fundamental Radio Configuration information.

17                       The mobile station shall set this field as described below to  
 18                       indicate which Radio Configurations (see [2] Table 3.1.3.1-1)  
 19                       are supported by the mobile station on the Forward  
 20                       Fundamental Channel.

21                       This field consists of the sequence of 1-bit indicators, each  
 22                       indicating the mobile station support for specific Radio  
 23                       Configuration. Bit positions of these indicators in the field  
 24                       and corresponding Radio Configurations are specified in Table  
 25                       2.7.4.27.1-1.

26                       The mobile station shall set each indicator to '1' if the  
 27                       corresponding Radio Configuration on the Forward  
 28                       Fundamental Channel is supported by the mobile station;  
 29                       otherwise, the mobile station shall set the indicator to '0'. The  
 30                       mobile station shall set any unused bits in the field to '0'.

**Table 2.7.4.27.1-1. Forward Channel Radio Configurations Supported**

| <b>Subfield</b> | <b>Length (bits)</b> | <b>Subfield Description</b> |
|-----------------|----------------------|-----------------------------|
| RC1             | 1                    | Radio Configuration 1       |
| RC2             | 1                    | Radio Configuration 2       |
| RC3             | 1                    | Radio Configuration 3       |
| RC4             | 1                    | Radio Configuration 4       |
| RC5             | 1                    | Radio Configuration 5       |
| RC6             | 1                    | Radio Configuration 6       |
| RC7             | 1                    | Radio Configuration 7       |
| RC8             | 1                    | Radio Configuration 8       |
| RC9             | 1                    | Radio Configuration 9       |

2

3           REV\_FCH\_LEN     – Reverse Fundamental Channel Configuration information  
 4           length.

5           The mobile station shall set this field to the number of 3 bit units  
 6           required to specify the length, in bits, of the  
 7           REV\_FCH\_RC\_MAP field.

8           REV\_FCH\_RC\_MAP   – Reverse Fundamental Radio Configuration information.

9           The mobile station shall set this field as described below to  
 10          indicate which Radio Configurations (see [2] Table 2.1.3.1-1)  
 11          are supported by the mobile station on the Reverse  
 12          Fundamental Channel.

13          This field consists of the sequence of 1-bit indicators, each  
 14          indicating the mobile station support for specific Radio  
 15          Configuration. Bit positions of these indicators in the field  
 16          and corresponding Radio Configurations are specified in Table  
 17          2.7.4.27.1-2.

18          The mobile station shall set each indicator to '1' if the  
 19          corresponding Radio Configuration on the Reverse  
 20          Fundamental Channel is supported by the mobile station;  
 21          otherwise, the mobile station shall set the indicator to '0'. The  
 22          mobile station shall set any unused bits in the field to '0'.

23

1

**Table 2.7.4.27.1-2. Reverse Channel Radio Configurations Supported**

| <b>Subfield</b> | <b>Length (bits)</b> | <b>Subfield Description</b> |
|-----------------|----------------------|-----------------------------|
| RC1             | 1                    | Radio Configuration 1       |
| RC2             | 1                    | Radio Configuration 2       |
| RC3             | 1                    | Radio Configuration 3       |
| RC4             | 1                    | Radio Configuration 4       |
| RC5             | 1                    | Radio Configuration 5       |
| RC6             | 1                    | Radio Configuration 6       |

2

## 1    2.7.4.27.2 DCCH Type-Specific Fields

2    The Dedicated Control Channel configuration capability information included in the DCCH  
 3    Type-specific fields contains the following subfields:

|                 |                  |
|-----------------|------------------|
| DCCH_FRAME_SIZE | 2                |
| FOR_DCCH_LEN    | 3                |
| FOR_DCCH_RC_MAP | 3 x FOR_DCCH_LEN |
| REV_DCCH_LEN    | 3                |
| REV_DCCH_RC_MAP | 3 x REV_DCCH_LEN |

5    DCCH\_FRAME\_SIZE    -    Frame Size supported indicator on the Dedicated Control  
 6    Channel.

7    The mobile station shall set this field to the frame size  
 8    supported for the forward and reverse DCCH, as shown in  
 9    Table 2.7.4.27.2-1.

10    **Table 2.7.4.27.2-1. DCCH Frame Size Supported**

| DCCH_FRAME_SIZE<br>(binary) | Description                                                      |
|-----------------------------|------------------------------------------------------------------|
| 00                          | Either 5 ms or 20 ms frame sizes<br>(not dynamically switchable) |
| 01                          | 20 ms frame size only                                            |
| 10                          | 5 ms frame size only                                             |
| 11                          | Both 5 ms and 20 ms frame sizes<br>(Dynamically switchable)      |

11    FOR\_DCCH\_LEN    -    Forward Dedicated Control Channel Configuration information  
 12    length.

13    The mobile station shall set this field to the number of 3 bit  
 14    units required to specify the length, in bits, of the  
 15    FOR\_DCCH\_RC\_MAP field.

16    FOR\_DCCH\_RC\_MAP    -    Forward Dedicated Channel Radio Configuration information.

17    The mobile station shall set this field as described below to  
 18    indicate which Radio Configurations (See—see [2]—Table  
 19    3.1.3.1-1) are supported by the mobile station on the Forward  
 20    Dedicated Control Channel.

21    This field consists of the sequence of 1-bit indicators, each  
 22    indicating the mobile station support for specific Radio  
 23    Configuration. Bit positions of these indicators in the field  
 24    and corresponding Radio Configurations are specified in Table  
 25    2.7.4.27.1-1.

1                   The mobile station shall set each indicator to '1' if the  
2                   corresponding Radio Configuration on the Forward Dedicated  
3                   Control Channel is supported by the mobile station;  
4                   otherwise, the mobile station shall set the indicator to '0'. The  
5                   mobile station shall set any unused bits in the field to '0'.

6     REV\_DCCH\_LEN    - Reverse Dedicated Control Channel Configuration information  
7                   length.

8                   The mobile station shall set this field to the number of 3 bit  
9                   units required to specify the length, in bits, of the  
10                  REV\_DCCH\_RC\_MAP field.

11    REV\_DCCH\_RC\_MAP - Reverse Dedicated Control Channel Radio Configuration  
12                   information.

13                   The mobile station shall set this field as described below to  
14                   indicate which Radio Configurations (see [2]-[Table 2.1.3.1-1](#))  
15                   are supported by the mobile station on the Reverse Dedicated  
16                   Control Channel.

17                   This field consists of the sequence of 1-bit indicators, each  
18                   indicating the mobile station support for specific Radio  
19                   Configuration. Bit positions of these indicators in the field  
20                   and corresponding Radio Configurations are specified in Table  
21                  2.7.4.27.1-2.

22                   The mobile station shall set each indicator to '1' if the  
23                   corresponding Radio Configuration on the Reverse Dedicated  
24                   Control Channel is supported by the mobile station;  
25                   otherwise, the mobile station shall set the indicator to '0'. The  
26                   mobile station shall set any unused bits in the field to '0'.

1    2.7.4.27.3 FOR\_SCH Type-Specific Fields-

2    The Forward Supplemental Channel configuration capability information included in the  
3    FOR\_SCH Type-specific fields contains the following subfields:

4

|                |                 |
|----------------|-----------------|
| FOR_SCH_LEN    | 3               |
| FOR_SCH_RC_MAP | 3 x FOR_SCH_LEN |
| FOR_SCH_NUM    | 2               |

5

FOR\_SCH\_NUM occurrences of the following fields:

|                          |        |
|--------------------------|--------|
| FOR_TURBO_SUPPORTED      | 1      |
| FOR_MAX_TURBO_BLOCK_SIZE | 0 or 4 |
| FOR_CONV_SUPPORTED       | 1      |
| FOR_MAX_CONV_BLOCK_SIZE  | 0 or 4 |
| FOR_FRAME_40_SUPPORTED   | 1      |
| FOR_FRAME_80_SUPPORTED   | 1      |
| FOR_MAX_RATE             | 4      |

6

7    FOR\_SCH\_LEN    -    Forward Supplemental Channel information length in units of  
8    3 bits.

9                  The mobile station shall set this field to the number of 3 bit  
10   units required to specify the length, in bits, of the  
11   FOR\_SCH\_RC\_MAP field.

12   FOR\_SCH\_RC\_MAP    -    Forward Supplemental Channel Radio Configuration  
13   capability.

14                  The mobile station shall set this field as described below to  
15   indicate which Radio Configurations (see [2] Table 3.1.3.1-1)  
16   are supported by the mobile station on the Forward  
17   Supplemental Channel.

18                  This field consists of the sequence of 1-bit indicators, each  
19   indicating the mobile station support for specific Radio  
20   Configuration. Bit positions of these indicators in the field  
21   and corresponding Radio Configurations are specified in Table  
22   2.7.4.27.1-1.

23                  The mobile station shall set each indicator to '1' if the  
24   corresponding Radio Configuration on the Forward  
25   Supplemental Channel is supported by the mobile station;  
26   otherwise, the mobile station shall set the indicator to '0'. The  
27   mobile station shall set any unused bits in the field to '0'.

28   FOR\_SCH\_NUM    -    Number of Forward Supplemental Channels.

1                   The mobile station shall set this field to the number of  
 2                   Forward Supplemental Channels supported by the mobile  
 3                   station.

4                   If the FOR\_SCH\_NUM field is greater than zero, the mobile  
 5                   station shall include one occurrence of the following 8 fields  
 6                   for each Forward Supplemental Channel supported by the  
 7                   mobile station. The first occurrence is SCH0 related  
 8                   information. The second occurrence (if any) is SCH1 related  
 9                   information.

10                  FOR\_TURBO-  
 11                  \_SUPPORTED

- Forward Turbo Coding supported indicator.  
 If the mobile station supports Turbo Coding on this Forward Supplemental Channel, it shall set this field to '1'; otherwise, the mobile station shall set this field to '0'.

15                  FOR\_MAX\_TURBO-  
 16                  \_BLOCK\_SIZE

- Forward maximum Turbo Coding block size.  
 If the field FOR\_TURBO\_SUPPORTED is set to '0', the mobile station shall omit this field; otherwise the mobile station shall include this field and set it to the maximum block size allowed for Turbo coding (see Table 2.7.4.27.3-1).

21                  **Table 2.7.4.27.3-1. Block Size**

| <b>FOR_MAX_TURBO_BLOCK_SIZE</b><br><b>REV_MAX_TURBO_BLOCK_SIZE</b><br><b>FOR_MAX_CONV_BLOCK_SIZE</b><br><b>REV_MAX_CONV_BLOCK_SIZE</b><br><b>(binary)</b> | <b>Block Size</b>                                  |                                      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|--------------------------------------|
|                                                                                                                                                           | <b>R-SCH RC</b><br><b>3 and 5</b>                  | <b>R-SCH RC 4</b><br><b>and 6</b>    |
|                                                                                                                                                           | <b>F-SCH RC</b><br><b>3, 4, 6,</b><br><b>and 7</b> | <b>F-SCH RC</b><br><b>5, 8 and 9</b> |
|                                                                                                                                                           |                                                    | <b>Rate Set 2</b>                    |
|                                                                                                                                                           |                                                    | <b>Rate Set 1</b>                    |
| 0000                                                                                                                                                      | 172                                                | 267                                  |
| 0001                                                                                                                                                      | 360                                                | 552                                  |
| 0010                                                                                                                                                      | 744                                                | 1128                                 |
| 0011                                                                                                                                                      | 1512                                               | 2280                                 |
| 0100                                                                                                                                                      | 3048                                               | 4584                                 |
| 0101                                                                                                                                                      | 6120                                               | 9192                                 |

|          |                               |       |
|----------|-------------------------------|-------|
| 0110     | 12264                         | 20712 |
| RESERVED | All other values are reserved |       |

- 1
- 2           FOR\_CONV-
- 3            \_SUPPORTED    - Forward Convolutional Coding supported indicator.  
         If the mobile station supports Convolutional Coding on this Forward Supplemental Channel, it shall set this field to '1'; otherwise, the mobile station shall set this field to '0'.
- 4
- 5
- 6
- 7           FOR\_MAX\_CONV-
- 8            \_BLOCK\_SIZE    - Forward maximum Convolutional Coding block size.  
         If the field FOR\_CONV\_SUPPORTED is set to '0', the mobile station shall omit this field; otherwise the mobile station shall include this field and set it to the maximum block size allowed for Convolutional coding. (see Table 2.7.4.27.3-1)
- 9
- 10
- 11
- 12
- 13          FOR\_FRAME\_40-
- 14           \_SUPPORTED    - Forward 40ms frame indicator.  
         If the mobile station supports 40 ms frames on this Forward Supplemental Channel, it shall set this field to '1'; otherwise, the mobile station shall set this field to '0'.
- 15
- 16
- 17
- 18          FOR\_FRAME\_80-
- 19           \_SUPPORTED    - Forward 80ms frame Indicator.  
         If the mobile station supports 80 ms frames on this Forward Supplemental Channel, it shall set this field to '1'; otherwise, the mobile station shall set this field to '0'.
- 20
- 21
- 22
- 23          FOR\_MAX\_RATE    - Maximum forward supplemental channels rate  
         The mobile station shall set this field according to Table 2.7.4.27.3-2 to indicate the maximum forward supplemental channel frame rate supported.
- 24
- 25
- 26
- 27

1  
2**Table 2.7.4.27.3-2. SCH Data Rate**

| <b>REV_MAX_RATE<br/>FOR_MAX_RATE<br/>(binary)</b> | <b>Max Rate (kbps)</b>         |                             |
|---------------------------------------------------|--------------------------------|-----------------------------|
|                                                   | <b>R-SCH RC<br/>3, 5</b>       | <b>R-SCH RC<br/>4, 6</b>    |
|                                                   | <b>F-SCH RC<br/>3, 4, 6, 7</b> | <b>F-SCH RC<br/>5, 8, 9</b> |
| 0000                                              | 9.6                            | 14.4                        |
| 0001                                              | 19.2                           | 28.8                        |
| 0010                                              | 38.4                           | 57.6                        |
| 0011                                              | 76.8                           | 115.2                       |
| 0100                                              | 153.6                          | 230.4                       |
| 0101                                              | 307.2                          | 259.2                       |
| 0110                                              | 614.4                          | 460.8                       |
| 0111                                              | Reserved                       | 518.4                       |
| 1000                                              | Reserved                       | 1036.8                      |
| RESERVED                                          | All other values are reserved  |                             |

1    2.7.4.27.4 REV\_SCH Type-Specific Fields-

2    The Reverse Supplemental Channel configuration capability information included in the  
3    REV\_SCH Type-specific fields contains the following subfields:

4

|                |                 |
|----------------|-----------------|
| REV_SCH_LEN    | 3               |
| REV_SCH_RC_MAP | 3 x REV_SCH_LEN |
| REV_SCH_NUM    | 2               |

5

REV\_SCH\_NUM occurrences of the following fields:

|                          |        |
|--------------------------|--------|
| REV_TURBO_SUPPORTED      | 1      |
| REV_MAX_TURBO_BLOCK_SIZE | 0 or 4 |
| REV_CONV_SUPPORTED       | 1      |
| REV_MAX_CONV_BLOCK_SIZE  | 0 or 4 |
| REV_FRAME_40_SUPPORTED   | 1      |
| REV_FRAME_80_SUPPORTED   | 1      |
| REV_MAX_RATE             | 4      |

6

7    REV\_SCH\_LEN    -    Reverse Supplemental Channel information length in units of  
8    3 bits.

9                  The mobile station shall set this field to the number of 3 bit  
10   units required to specify the length, in bits, of the  
11   REV\_SCH\_RC\_MAP field.

12   REV\_SCH\_RC\_MAP    -    Reverse Supplemental Channel Radio Configuration  
13   capability.

14                  The mobile station shall set this field as described below to  
15   indicate which Radio Configurations (See [2] Table 2.1.3.1-1)  
16   are supported by the mobile station on the Reverse  
17   Supplemental Channel.

18                  This field consists of the sequence of 1-bit indicators, each  
19   indicating the mobile station support for specific Radio  
20   Configuration. Bit positions of these indicators in the field  
21   and corresponding Radio Configurations are specified in Table  
22   2.7.4.27.1-[42](#).

23                  The mobile station shall set each indicator to '1' if the  
24   corresponding Radio Configuration on the Reverse  
25   Supplemental Channel is supported by the mobile station;  
26   otherwise, the mobile station shall set the indicator to '0'. The  
27   mobile station shall set any unused bits in the field to '0'.

28   REV\_SCH\_NUM    -    Number of Reverse Supplemental Channels

29                  The mobile station shall set this field to the number of Reverse  
30   Supplemental Channels supported by the mobile station.

If the REV\_SCH\_NUM field is greater than zero, the mobile station shall include one occurrence of the following 8 fields for each Reverse Supplemental Channel supported by the mobile station. The first occurrence is SCH0 related information. The second occurrence (if any) is SCH1 related information.

- 7           REV\_TURBO-
  - 8         \_SUPPORTED - Reverse Turbo Coding supported indicator.  
If the mobile station supports Turbo Coding on this Reverse Supplemental Channel, it shall set this field to '1'; otherwise, the mobile station shall set this field to '0'.
- 12          REV\_MAX\_TURBO-
  - 13         \_BLOCK\_SIZE - Reverse maximum Turbo Coding block size.  
If the field REV\_TURBO\_SUPPORTED is set to '0', the mobile station shall omit this field; otherwise the mobile station shall include this field and set it to the maximum block size allowed for Turbo coding (see Table 2.7.4.27.3-1).
- 18          REV\_CONV\_SUPPORTED - Reverse Convolutional Coding supported indicator.  
If the mobile station supports Convolutional Coding on this Reverse Supplemental Channel, it shall set this field to '1'; otherwise, the mobile station shall set this field to '0'.
- 22          REV\_MAX\_CONV-
  - 23         \_BLOCK\_SIZE - Reverse maximum Convolutional Coding block size.  
If the field REV\_CONV\_SUPPORTED is set to '0', the mobile station shall omit this field; otherwise the mobile station shall include this field and set it to the maximum block size allowed for Convolutional coding (see Table 2.7.4.27.3-1).
- 28          REV\_FRAME\_40-
  - 29         \_SUPPORTED - Reverse 40ms frame indicator.  
If the mobile station supports 40 ms frames on this Reverse Supplemental Channel, it shall set this field to '1'; otherwise, the mobile station shall set this field to '0'.
- 33          REV\_FRAME\_80-
  - 34         \_SUPPORTED - Reverse 80ms frame indicator.  
If the mobile station supports 80 ms frames on this Reverse Supplemental Channel, it shall set this field to '1'; otherwise, the mobile station shall set this field to '0'.
- 38          REV\_MAX\_RATE - Maximum reverse supplemental channels rate  
The mobile station shall set this field according to Table 2.7.4.27.3-2 to indicate the maximum reverse supplemental channel frame rate supported.

1    2.7.4.28 Extended Multiplex Option Information

2    This information record can be included in a *Status Response Message* or an *Extended*  
3    *Status Response Message* to return multiplex option information about the mobile station.

| Type-Specific Field | Length (bits) |
|---------------------|---------------|
| NUM_MO_FOR_FCH      | 4             |

NUM\_MO\_FOR\_FCH occurrences of the following two-field record:

|                  |    |
|------------------|----|
| MO_FOR_FCH       | 16 |
| FOR_NUM_BITS_FCH | 8  |

|                |   |
|----------------|---|
| NUM_MO_REV_FCH | 4 |
|----------------|---|

NUM\_MO\_REV\_FCH occurrences of the following two-field record:

|                  |    |
|------------------|----|
| MO_REV_FCH       | 16 |
| REV_NUM_BITS_FCH | 8  |

|                 |   |
|-----------------|---|
| NUM_MO_FOR_DCCH | 4 |
|-----------------|---|

NUM\_MO\_FOR\_DCCH occurrences of the following one-field record:

|             |    |
|-------------|----|
| MO_FOR_DCCH | 16 |
|-------------|----|

|                 |   |
|-----------------|---|
| NUM_MO_REV_DCCH | 4 |
|-----------------|---|

NUM\_MO\_REV\_DCCH occurrences of the following one-field record:

|             |    |
|-------------|----|
| MO_REV_DCCH | 16 |
|-------------|----|

|                |   |
|----------------|---|
| NUM_MO_FOR_SCH | 4 |
|----------------|---|

NUM\_MO\_FOR\_SCH occurrences of the following two-field record:

|            |    |
|------------|----|
| FOR_SCH_ID | 1  |
| MO_FOR_SCH | 16 |

|                |   |
|----------------|---|
| NUM_MO_REV_SCH | 4 |
|----------------|---|

NUM\_MO\_REV\_SCH occurrences of the following two-field record:

|            |    |
|------------|----|
| REV_SCH_ID | 1  |
| MO_REV_SCH | 16 |

|          |                   |
|----------|-------------------|
| RESERVED | 0 - 7 (as needed) |
|----------|-------------------|

- 1
- 2 NUM\_MO\_FOR\_FCH – Number of Forward Fundamental Channel Multiplex Options.
- 3 The mobile station shall set this field to the number of the
- 4 Forward Fundamental Channel Multiplex Options supported
- 5 by the mobile station.
- 6 If NUM\_MO\_FOR\_FCH is not equal to ‘0000’, the mobile
- 7 station shall include NUM\_MO\_FOR\_FCH occurrences of the
- 8 following two fields for each supported Forward Fundamental
- 9 Channel multiplex option:
- 10 MO\_FOR\_FCH – Forward Fundamental Channel multiplex option.
- 11 The mobile station shall set this field to the Forward
- 12 Fundamental Channel multiplex option.
- 13 FOR\_NUM-
- 14 \_BITS\_FCH – Forward Fundamental Channel number of bits per frame.
- 15 The mobile station shall set this field as described below to
- 16 indicate which number of bits per frameare supported by the
- 17 mobile station on the Forward Fundamental Channel.
- 18 This field consists of the sequence of 1-bit indicators, each
- 19 indicating the mobile station support for specific number of
- 20 bits per frame. Bit positions of these indicators in the field
- 21 and corresponding number of bits per frameare specified in
- 22 Table 2.7.4.28-1 if MO\_FOR\_FCH is equal to 1, Table 2.7.4.28-
- 23 2 if MO\_FOR\_FCH is equal to 2, and Table 2.7.4.28-3 if
- 24 MO\_FOR\_FCH is equal to 0x704.
- 25 The mobile station shall set each indicator to ‘1’ if the
- 26 corresponding number of bits per frameon the Forward
- 27 Fundamental Channel is supported by the mobile station;
- 28 otherwise, the mobile station shall set the indicator to ‘0’.
- 29

30 **Table 2.7.4.28-1. Forward Fundamental Channel Number of**  
 31 **Bits per Frame for MO\_FOR\_FCH equal to 1**

| Subfield     | Length (bits) | Subfield Description          |
|--------------|---------------|-------------------------------|
| RS1_9600_FOR | 1             | 172 bits per F-FCH frame      |
| RS1_4800_FOR | 1             | 80 bits per F-FCH frame       |
| RS1_2400_FOR | 1             | 40 bits per F-FCH frame       |
| RS1_1200_FOR | 1             | 16bits per F-FCH frame        |
| RESERVED     | 4             | <a href="#">Reserved Bits</a> |

1  
2      **Table 2.7.4.28-2. Forward Fundamental Channel Number of**  
**Bits per Frame for MO\_FOR\_FCH equal to 2**

| Subfield      | Length (bits) | Subfield Description          |
|---------------|---------------|-------------------------------|
| RS2_14400_FOR | 1             | 267 bits per F-FCH frame      |
| RS2_7200_FOR  | 1             | 125 bits per F-FCH frame      |
| RS2_3600_FOR  | 1             | 55 bits per F-FCH frame       |
| RS2_1800_FOR  | 1             | 21 bits per F-FCH frame       |
| RESERVED      | 4             | <a href="#">Reserved Bits</a> |

3  
4      **Table 2.7.4.28-3. Forward Fundamental Channel Number of**  
**Bits per Frame for MO\_FOR\_FCH equal to 0x704**

| Subfield | Length (bits) | Subfield Description                                                                                                  |
|----------|---------------|-----------------------------------------------------------------------------------------------------------------------|
| R1       | 1             | Highest possible number of bits on F-FCH (specified by NUM_BITS <sub>S</sub> [FFCH_NBIT_TABLE_ID][0000])              |
| R2       | 1             | Second highest possible number of bits on F-FCH (specified by NUM_BITS <sub>S</sub> [FFCH_NBIT_TABLE_ID][0001])       |
| R3       | 1             | Third highest possible number of bits on F-FCH (specified by NUM_BITS <sub>S</sub> [FFCH_NBIT_TABLE_ID][0010])        |
| R4       | 1             | Forth highest possible number of bits on F-FCH (specified by NUM_BITS <sub>S</sub> [FFCH_NBIT_TABLE_ID][0011])        |
| R5       | 1             | Fifth Second highest possible number of bits on F-FCH (specified by NUM_BITS <sub>S</sub> [FFCH_NBIT_TABLE_ID][0100]) |
| R6       | 1             | Sixth highest possible number of bits on F-FCH (specified by NUM_BITS <sub>S</sub> [FFCH_NBIT_TABLE_ID][0101])        |
| R7       | 1             | Seventh highest possible number of bits on F-FCH (specified by NUM_BITS <sub>S</sub> [FFCH_NBIT_TABLE_ID][0110])      |
| R8       | 1             | Eighth highest possible number of bits on F-FCH (specified by NUM_BITS <sub>S</sub> [FFCH_NBIT_TABLE_ID][0111])       |

6  
7      NUM\_MO\_REV\_FCH – Number of Reverse Fundamental Channel Multiplex Options.

1           The mobile station shall set this field to the number of the  
 2           Reverse Fundamental Channel Multiplex Options supported  
 3           by the mobile station.

4           If NUM\_MO\_REV\_FCH is not equal to '0000', the mobile  
 5           station shall include NUM\_MO\_REV\_FCH occurrences of the  
 6           following two fields for each supported Reverse Fundamental  
 7           Channel multiplex option:

- 8           MO\_REV\_FCH     – Reverse Fundamental Channel multiplex option.  
 9                         The mobile station shall set this field to the Reverse  
 10                       Fundamental Channel multiplex option.

- 11           REV\_NUM-  
 12           \_BITS\_FCH – Reverse Fundamental Channel number of bits per frame.

13           The mobile station shall set this field as described below to  
 14           indicate which number of bits per frame are supported by the  
 15           mobile station on the Reverse Fundamental Channel.

16           This field consists of the sequence of 1-bit indicators, each  
 17           indicating the mobile station support for number of bits per  
 18           frame. Bit positions of these indicators in the field and  
 19           corresponding number of bits per frame are specified in Table  
 20           2.7.4.28-4 if MO\_REV\_FCH is equal to 1, Table 2.7.4.28-5 if  
 21           MO\_REV\_FCH is equal to 2, and Table 2.7.4.28-6 if  
 22           MO\_REV\_FCH is equal to 0x704.

23           The mobile station shall set each indicator to '1' if the  
 24           corresponding number of bits per frame on the Reverse  
 25           Fundamental Channel is supported by the mobile station;  
 26           otherwise, the mobile station shall set the indicator to '0'.  
 27

28           **Table 2.7.4.28-4. Reverse Fundamental Channel Number of  
 29           Bits per Frame for MO\_REV\_FCH equal to 1**

| <b>Subfield</b> | <b>Length (bits)</b> | <b>Subfield Description</b>   |
|-----------------|----------------------|-------------------------------|
| RS1_9600_REV    | 1                    | 172 bits per R-FCH frame      |
| RS1_4800_REV    | 1                    | 80 bits per R-FCH frame       |
| RS1_2400_REV    | 1                    | 40 bits per R-FCH frame       |
| RS1_1200_REV    | 1                    | 16 bits per R-FCH frame       |
| RESERVED        | 4                    | <a href="#">Reserved Bits</a> |

1  
2

**Table 2.7.4.28-5. Reverse Fundamental Channel Number of Bits per Frame for MO\_REV\_FCH equal to 2**

| Subfield      | Length (bits) | Subfield Description          |
|---------------|---------------|-------------------------------|
| RS2_14400_REV | 1             | 267 bits per R-FCH frame      |
| RS2_7200_REV  | 1             | 125 bits per R-FCH frame      |
| RS2_3600_REV  | 1             | 55 bits per R-FCH frame       |
| RS2_1800_REV  | 1             | 21 bits per R-FCH frame       |
| RESERVED      | 4             | <a href="#">Reserved Bits</a> |

3  
4  
5

**Table 2.7.4.28-6. Reverse Fundamental Channel Number of Bits per Frame for MO\_REV\_FCH equal to 0x704**

| Subfield | Length (bits) | Subfield Description                                                                                                  |
|----------|---------------|-----------------------------------------------------------------------------------------------------------------------|
| R1       | 1             | Highest possible number of bits on R-FCH (specified by NUM_BITS <sub>S</sub> [RFCH_NBIT_TABLE_ID][0000])              |
| R2       | 1             | Second highest possible number of bits on R-FCH (specified by NUM_BITS <sub>S</sub> [RFCH_NBIT_TABLE_ID][0001])       |
| R3       | 1             | Third highest possible number of bits on R-FCH (specified by NUM_BITS <sub>S</sub> [RFCH_NBIT_TABLE_ID][0010])        |
| R4       | 1             | Forth highest possible number of bits on R-FCH (specified by NUM_BITS <sub>S</sub> [RFCH_NBIT_TABLE_ID][0011])        |
| R5       | 1             | Fifth Second highest possible number of bits on R-FCH (specified by NUM_BITS <sub>S</sub> [RFCH_NBIT_TABLE_ID][0100]) |
| R6       | 1             | Sixth highest possible number of bits on R-FCH (specified by NUM_BITS <sub>S</sub> [RFCH_NBIT_TABLE_ID][0101])        |
| R7       | 1             | Seventh highest possible number of bits on R-FCH (specified by NUM_BITS <sub>S</sub> [RFCH_NBIT_TABLE_ID][0110])      |
| R8       | 1             | Eighth highest possible number of bits on R-FCH (specified by NUM_BITS <sub>S</sub> [RFCH_NBIT_TABLE_ID][0111])       |

- 1       NUM\_MO\_FOR\_DCCH   – Number of Forward Dedicated Control Channel Multiplex  
 2                              Options.
- 3                              The mobile station shall set this field to the number of the  
 4                              Forward Dedicated Control Channel Multiplex Options  
 5                              supported by the mobile station.
- 6                              If NUM\_MO\_FOR\_DCCH is not equal to ‘0000’, the mobile  
 7                              station shall include NUM\_MO\_FOR\_DCCH occurrence of the  
 8                              following one field for each supported Forward Dedicated  
 9                              Control Channel multiplex option:
- 10          MO\_FOR\_DCCH   – Forward Dedicated Control Channel multiplex option.  
 11                              The mobile station shall set this field to the Forward  
 12                              Dedicated Control Channel multiplex option.
- 13          NUM\_MO\_REV\_DCCH   – Number of Reverse Dedicated Control Channel Multiplex  
 14                              Options.
- 15                              The mobile station shall set this field to the number of the  
 16                              Reverse Dedicated Control Channel Multiplex Options  
 17                              supported by the mobile station.
- 18                              If NUM\_MO\_REV\_DCCH is not equal to ‘0000’, the mobile  
 19                              station shall include NUM\_MO\_REV\_DCCH occurrence of the  
 20                              following one field for each supported Reverse Dedicated  
 21                              Control Channel multiplex option:
- 22          MO\_REV\_DCCH   – Reverse Dedicated Control Channel multiplex option.  
 23                              The mobile station shall set this field to the Reverse Dedicated  
 24                              Control Channel multiplex option.
- 25          NUM\_MO\_PERFOR\_SCH – Number of Forward Supplemental Channel Multiplex Options.  
 26                              The mobile station shall set this field to the number of the  
 27                              Reverse-Forward Supplemental Channel Multiplex Options  
 28                              supported by the mobile station included in this message.  
 29                              The mobile station shall include the multiplex option  
 30                              associated with the highest data rate it supports for each  
 31                              combination of MuxPDU type, rate set, and block size<sup>4</sup>.
- 32                              If NUM\_MO\_PERFOR\_SCH is not equal to ‘0000’, the mobile  
 33                              station shall include NUM\_MO\_PERFOR\_SCH occurrence of  
 34                              the following two fields:
- 35          FOR\_SCH\_ID   – Forward Supplemental Channel identifier.

---

<sup>4</sup> If any Rate Set 1 multiplex option is included, then mobile station support of MuxPDU Type 1 is implied and the mobile station is not required to include multiplex option 0x03. If any Rate Set 2 multiplex option is included, then mobile station support of MuxPDU Type 2 is implied and the mobile station is not required to include multiplex option 0x04 (see [3]).

The mobile station shall set this field to specify the Forward Supplemental Channel to which the Forward Supplemental multiplex option supported by the mobile station corresponds.

- MO\_FOR\_SCH** – Forward Supplemental Channel multiplex option.

The mobile station shall set this field to the Forward Supplemental Channel multiplex option associated with the maximum data rate (see [3]) that the mobile station supports<sup>5</sup>.

- NUM\_MO\_REV\_SCH** – Number of Reverse Supplemental Channel Multiplex Options.

The mobile station shall set this field to the number of the Reverse Supplemental Channel Multiplex Options supported by the mobile station included in this message. The mobile station shall include the multiplex option associated with the highest data rate it supports for each combination of MuxPDU type, rate set, and block size<sup>6</sup>.

If NUM\_MO\_REV\_SCH is not equal to '0000', the mobile station shall include NUM\_MO\_REV\_SCH occurrence of the following two fields:

- REV\_SCH\_ID** – Reverse Supplemental Channel identifier.

The mobile station shall set this field to specify the Reverse Supplemental Channel to which the Reverse Supplemental multiplex option supported by the mobile station corresponds.

- MO\_REV\_SCH** – Reverse Supplemental Channel multiplex option.

The mobile station shall set this field to the Reverse Supplemental Channel multiplex option associated with the maximum data rate (see [3]) that the mobile station supports<sup>7</sup>.

- RESERVED** – Reserved bits.

The mobile station shall add reserved bits as needed in order to make the length of the entire information record equal to an integer number of octets. The mobile station shall set these bits to '0'.

5 If the mobile station supports the multiplex option associated with the maximum data rate, the mobile station shall support all lower data rates as specified in Table 2-46 of [3].

<sup>6</sup> If any Rate Set 1 multiplex option is included, then mobile station support of MuxPDU Type 1 is implied and the mobile station is not required to include multiplex option 0x03. If any Rate Set 2 multiplex option is included, then mobile station support of MuxPDU Type 2 is implied and the mobile station is not required to include multiplex option 0x04 (see [3]).

<sup>7</sup> If the mobile station supports the multiplex option associated with the maximum data rate, the mobile station shall support all lower data rates as specified in Table 2-46 of [3].

## 1    2.7.4.29 Geo-Location Capability

2    This information record identifies the geo-location capabilities of the mobile station. The  
 3    mobile station shall use the following fixed-length format for the type-specific fields:

| Type-Specific Field | Length (bits) |
|---------------------|---------------|
| GEO_LOC             | 3             |
| RESERVED            | 5             |

5            GEO\_LOC – Geo-location.

6            The mobile station shall set this field to the value shown in Table  
 7            2.7.4.34-1.

9            **Table 2.7.4.34-1. Geo-location Codes**

| GEO_LOC<br>(binary)                         | Type of Wireless Assisted GPS<br>Identifiers                                        |
|---------------------------------------------|-------------------------------------------------------------------------------------|
| 000                                         | No mobile station assisted geo-location capabilities                                |
| 001                                         | IS-801 capable (Advanced Forward Link Triangulation only)                           |
| 010                                         | IS-801 capable (Advanced Forward Link Triangulation and Global Positioning Systems) |
| 011                                         | Global Positioning Systems only                                                     |
| All other GEO_LOC_TYPE values are reserved. |                                                                                     |

10          RESERVED – Reserved bit.

11          The mobile station shall set this field to '00000'.

12

## 1    2.7.4.30 Band Subclass Information

2    This information record can be included in a *Status Response Message*, or an *Extended*  
 3    *Status Response Message* to return band subclass information about the mobile station.

4

| Type-Specific Field | Length (bits)  |
|---------------------|----------------|
| BAND_SUBCLASS_INFO  | 8 × RECORD_LEN |

5

6    BAND\_SUBCLASS\_INFO – Band subclass information.

7                  This field indicates which band subclasses are supported by  
 8                  the mobile station.

9                  If BAND\_CLASS specified in the *Status Request Message* is  
 10                 equal to '00000' (Cellular Band), this field consists of the  
 11                 following subfields which are included in the information  
 12                 record in the order shown:

13

| Subfield        | Length (bits) | Subfield Description          |
|-----------------|---------------|-------------------------------|
| BAND_SUBCLASS_0 | 1             | Band Subclass 0               |
| BAND_SUBCLASS_1 | 1             | Band Subclass 1               |
| RESERVED        | 6             | <a href="#">Reserved Bits</a> |

14

15                  If BAND\_CLASS specified in the *Status Request Message* is  
 16                 equal to '00010' (TACS Band), this field consists of the  
 17                 following subfields which are included in the information  
 18                 record in the order shown:

19

| Subfield        | Length (bits) | Subfield Description          |
|-----------------|---------------|-------------------------------|
| BAND_SUBCLASS_0 | 1             | Band Subclass 0               |
| BAND_SUBCLASS_1 | 1             | Band Subclass 1               |
| BAND_SUBCLASS_2 | 1             | Band Subclass 2               |
| RESERVED        | 5             | <a href="#">Reserved Bits</a> |

20

21                  If BAND\_CLASS specified in the *Status Request Message* is  
 22                 equal to '00101' (450 MHz NMT Band), this field consists of  
 23                 the following subfields which are included in the information  
 24                 record in the order shown:

25

| <b>Subfield</b> | <b>Length<br/>(bits)</b> | <b>Subfield Description</b> |
|-----------------|--------------------------|-----------------------------|
| BAND_SUBCLASS_0 | 1                        | Band Subclass 0             |
| BAND_SUBCLASS_1 | 1                        | Band Subclass 1             |
| BAND_SUBCLASS_2 | 1                        | Band Subclass 2             |
| BAND_SUBCLASS_3 | 1                        | Band Subclass 3             |
| BAND_SUBCLASS_4 | 1                        | Band Subclass 4             |
| BAND_SUBCLASS_5 | 1                        | Band Subclass 5             |
| BAND_SUBCLASS_6 | 1                        | Band Subclass 6             |
| BAND_SUBCLASS_7 | 1                        | Band Subclass 7             |

If BAND CLASS specified in the Status Request Message is equal to '01010' (Secondary 800 MHz band), this field consists of the following subfields which are included in the information record in the order shown:

| <b>Subfield</b>        | <b>Length<br/>(bits)</b> | <b>Subfield Description</b> |
|------------------------|--------------------------|-----------------------------|
| <u>BAND SUBCLASS 0</u> | <u>1</u>                 | <u>Band Subclass 0</u>      |
| <u>BAND SUBCLASS 1</u> | <u>1</u>                 | <u>Band Subclass 1</u>      |
| <u>BAND SUBCLASS 2</u> | <u>1</u>                 | <u>Band Subclass 2</u>      |
| <u>BAND SUBCLASS 3</u> | <u>1</u>                 | <u>Band Subclass 3</u>      |
| <u>BAND SUBCLASS 4</u> | <u>1</u>                 | <u>Band Subclass 4</u>      |
| <u>RESERVED</u>        | <u>3</u>                 | <u>Reserved Bits</u>        |

The mobile station shall set each subfield to '1' if the corresponding sub-band class is supported by the mobile station; otherwise, the mobile station shall set the subfield to '0'.

RESERVED – Reserved bits.

The mobile station shall set all reserved bits to '0'.

When more band subclasses are defined, the reserved bits will be used for the new corresponding subfields. Sufficient octets will be added to this field to accommodate the new subfields. All the undefined bits in an additional octet will be reserved bits.

The mobile station shall set all the reserved bits to '0'. If all bits are set to '0' in an octet and all succeeding octets, the mobile station shall omit the octet and the succeeding octets.

## 1    2.7.4.31 Global Emergency Call

2    This information record identifies that an emergency call is being originated. This record  
 3    may be included in a *Flash With Information Message* or an *Extended Flash With Information*  
 4    *Message* and allows the user to originate an emergency call.

5

| Type-Specific Field | Length (bits) |
|---------------------|---------------|
| NUM_INCL            | 1             |
| DIGIT_MODE          | 0 or 1        |
| NUMBER_TYPE         | 0 or 3        |
| NUMBER_PLAN         | 0 or 4        |
| NUM_CHAR            | 0 or 8        |

If NUM\_INCL is set to '1', include NUM\_CHAR occurrences of the following field:

|       |        |
|-------|--------|
| CHARi | 4 or 8 |
|-------|--------|

|                     |                    |
|---------------------|--------------------|
| MS_ORIG_POS_LOC_IND | 1                  |
| RESERVED            | 0 to 7 (as needed) |

6

- 7    NUM\_INCL    -    Dialed number included indicator.  
 8                 The mobile station shall set this field to '1' to indicate that the  
 9                 dialed digits are included in this information record;  
 10                otherwise, the mobile station shall set this field to '0'.  
 11   DIGIT\_MODE    -    Digit mode indicator.  
 12                 If NUM\_INCL is set to '1', the mobile station shall set this field  
 13                 to indicate whether the dialed digits are 4-bit DTMF codes or  
 14                 8-bit ASCII codes using a specified numbering plan;  
 15                 otherwise, the mobile station shall omit this field.  
 16                 To originate the call using the binary representation of DTMF  
 17                 digits, the mobile station shall set this field to '0'. To originate  
 18                 the call using ASCII characters, the mobile station shall set  
 19                 this field to '1'.  
 20   NUMBER\_TYPE    -    Type of number.  
 21                 If NUM\_INCL is set to '1' and the DIGIT MODE field is set to  
 22                 '1', the mobile station shall set this field to the  
 23                 NUMBER\_TYPE value shown in Table 2.7.1.3.2.4-2  
 24                 corresponding to the type of the called number, as defined in  
 25                 [7], Section 4.5.9; otherwise, the mobile station shall omit this  
 26                 field.  
 27   NUMBER\_PLAN    -    Numbering plan.

1           If NUM\_INCL is set to '1' and the DIGIT MODE field is set to  
 2           '1', the mobile station shall set this field to the  
 3           NUMBER\_PLAN value shown in Table 2.7.1.3.2.4-3  
 4           corresponding to the numbering plan used for the called  
 5           number, as defined in [7], Section 4.5.9; otherwise, the mobile  
 6           station shall omit this field.

7        NUM\_CHAR    – Number of characters.  
 8           If NUM\_INCL is set to '1', the mobile station shall set this field  
 9           to the number of characters included in this record;  
 10          otherwise, the mobile station shall omit this field.

11      CHARi       – Character.  
 12           If the NUM\_INCL is set to '1', The the mobile stations shall  
 13           include one NUM CHAR – occurrences of this field ~~for each~~  
 14           character in the called number.

15           If the DIGIT MODE field is set to '0', the mobile station shall  
 16           set each occurrence of this field to the code value shown in  
 17           Table 2.7.1.3.2.4-4 corresponding to the dialed digit. If the  
 18           DIGIT MODE field is set to '1', The mobile station shall set  
 19           each occurrence of this field to the ASCII representation  
 20           corresponding to the character, as specified in [9], with the  
 21           most significant bit set to '0'.

22      MS\_INIT\_POS\_LOC\_IND – Mobile Initiated Position Location Session indicator.  
 23           The mobile station shall set this field to '1' if  
 24           MS INIT POS LOC SUP INDs is equal to '1' and if the mobile  
 25           station is to initiate a position location session associated with  
 26           this emergency call; otherwise, the mobile station shall set  
 27           this field to '0'.

28      RESERVED     – Reserved bits.  
 29           The mobile station shall add reserved bits as needed in order  
 30           to make the length of the entire information record equal to an  
 31           integer number of octets. The mobile station shall set these  
 32           bits to '0'.

## 1    2.7.4.32 Hook Status

2    This information record shall indicate the status of the hook switch in Wireless Local Loop  
3    mobile stations. The mobile station shall use the following fixed-length format for the type-  
4    specific fields:

| Type-Specific Field | Length (bits) |
|---------------------|---------------|
| HOOK_STATUS         | 4             |
| RESERVED            | 4             |

6              HOOK\_STATUS    -    WLL terminal hook status.

7              The mobile station shall set this sub-field to the value shown  
8              in Table 2.7.1.3.2.1-4 corresponding to the hook state.

9              RESERVED    -    Reserved bits.

10             The mobile station shall set this field to '0000'.  
11

## 1    2.7.4.33 QoS Parameters

2    This information record conveys to the user the QoS parameters associated with the service  
 3    to be provided:

| Type-Specific Field | Length (bits)     |
|---------------------|-------------------|
| QoS Parameters      | variable          |
| RESERVED            | 0 - 7 (as needed) |

- 4
- 5    QoS Parameters    -    Block containing the QoS Parameters.  
 6    The mobile station shall set this field to the QoS parameters  
 7    associated with the user (per subscription), service type (e.g.,  
 8    assured vs. non-assured services) and the service option. The  
 9    details of the QoS parameters may be found in documents  
 10   describing the service options.
- 11    RESERVED    -    Reserved bits for octet alignment.  
 12    The mobile station shall add the minimum number of bits  
 13    necessary to make the record length in bits an integral  
 14    multiple of 8. The mobile station shall set these bits to '0'.

## 1    2.7.4.34 Encryption Capability

2    This information record identifies the encryption capability of the mobile station.

3

| Type-Specific Field | Length (bits) |
|---------------------|---------------|
| SIG_ENCRYPT_SUP     | 8             |
| UI_ENCRYPT_SUP      | 8             |

4

5    SIG\_ENCRYPT\_SUP    -    Signaling Encryption supported indicator.

6                          The mobile station shall set this field to indicate which  
7                          signaling encryption algorithms are supported by the mobile  
8                          station, as shown in Table 2.7.1.3.2.1-5.

9                          The mobile station shall set the subfields as follows:

10                         The mobile station shall set the CMEA subfield to '1'.

11                         The mobile station shall set each subfield to '1' if the  
12                         corresponding signaling encryption algorithm is supported by  
13                         the mobile station; otherwise, the mobile station shall set the  
14                         subfield to '0'.15                         The mobile station shall set the RESERVED subfield to  
16                         '00000E'.  
17                         UI\_ENCRYPT\_SUP    -    User information Encryption supported indicator.18                         The mobile station shall set this field to indicate the  
19                         supported user information encryption algorithms, as shown  
20                         in Table 2.7.1.3.2.4-9.21                         The mobile station shall set each subfield to '1' if the  
22                         corresponding user information encryption algorithm is  
23                         supported by the mobile station; otherwise, the mobile station  
24                         shall set the subfield to '0'.25                         The mobile station shall set the RESERVED subfield to  
26                         '000000'.

27

1    **3. REQUIREMENTS FOR BASE STATION CDMA OPERATION**

2    This section defines requirements that are specific to CDMA base station equipment and  
3    operation.

4    **3.1 Reserved**

5    **3.2 Reserved**

6    **3.3 Security and Identification**

7    3.3.1 Authentication

8    The base station may be equipped with a database that includes unique mobile station  
9    authentication keys, shared secret data, or both for each registered mobile station in the  
10   system. This database is used for authentication of mobile stations that are equipped for  
11   authentication operation.

12   If the base station supports mobile station authentication, it shall provide the following  
13   capabilities: The base station shall send and receive authentication messages and perform  
14   the authentication calculations described in 2.3.12.1. If the base station supports 800 MHz  
15   analog operation, the base station should set the RAND parameter of the *Access Parameters*  
16   *Message* to the same value transmitted on the forward analog control channel (see [6]).

17   3.3.2 Encryption

18   If the base station supports mobile station authentication (see 3.3.1), it may also support  
19   message encryption by providing the capability to send encryption control messages and  
20   the ability to perform the operations of encryption and decryption as specified in 2.3.12.2.

21   3.3.3 Voice Privacy

22   If the base station supports mobile station authentication (see 3.3.1), it may also support  
23   voice privacy using the private long code mask, as specified in 2.3.12.3.

24   3.3.4 Extended-Encryption

25   If the base station supports mobile station authentication (see 3.3.1), it may also support  
26   Extended-Encryption for Signaling Messages and User Information as specified in 2.3.12.4.

27   **3.4 Supervision**

28   3.4.1 Access Channel or Enhanced Access Channel

29   The base station shall continually monitor each active Access Channel or Enhanced Access  
30   Channel or both. The base station should provide control in cases of overload by using  
31   either the *Access Parameters Message* or the *Enhanced Access Parameters Message*.

32   3.4.2 Reverse Traffic Channel

33   The base station shall continually monitor each active Reverse Traffic Channel to determine

1 if the call is active. If the base station detects that the call is no longer active, the base  
 2 station shall declare loss of Reverse Traffic Channel continuity (see 3.6.4).

3 **3.5 Reserved**

4 **3.6 Layer 3 Processing**

5 This section describes base station ~~layer 3~~Layer 3 processing. It contains frequent  
 6 references to the messages that flow between the base station and the mobile station.  
 7 While reading this section, it may be helpful to refer to the message formats (see 2.7 and  
 8 3.7), and to the call flow examples (see Annex B). The values for the time and numeric  
 9 constants used in this section (e.g., T1b and N4m) are specified in Annex D.

10 Base station processing consists of the following types of processing:

- 11 • *Pilot and Sync Channel Processing* - During *Pilot and Sync Channel Processing*, the  
 12 base station transmits the Pilot Channel and Sync Channel which the mobile station  
 13 uses to acquire and synchronize to the CDMA system while the mobile station is in  
 14 the *Mobile Station Initialization State*.
- 15 • *Common Channel Processing* - During *Common Channel Processing*, the base station  
 16 transmits the Paging Channel and/or the Forward Common Control  
 17 Channel/Broadcast Control Channel which the mobile station monitors to receive  
 18 messages while the mobile station is in the *Mobile Station Idle State* and the *System*  
 19 *Access State*.
- 20 • *Access Channel and Enhanced Access Channel Processing* - During *Access Channel*  
 21 and *Enhanced Access Channel Processing*, the base station monitors the Access  
 22 Channel and/or the Enhanced Access Channel to receive messages which the  
 23 mobile station sends while the mobile station is in the *System Access State*.
- 24 • *Traffic Channel Processing* - During *Traffic Channel Processing*, the base station uses  
 25 the Forward and Reverse Traffic Channels to communicate with the mobile station  
 26 while the mobile station is in the *Mobile Station Control on the Traffic Channel State*.

27 **3.6.1 Pilot and Sync Channel Processing**

28 During *Pilot and Sync Channel Processing*, the base station transmits the Pilot and Sync  
 29 Channels which the mobile station uses to acquire and synchronize to the CDMA system  
 30 while the mobile station is in the *Mobile Station Initialization State*.

31 **3.6.1.1 Preferred Set of CDMA Channels**

32 The preferred set of frequency assignments are the CDMA Channels on which the mobile  
 33 station attempts to acquire the CDMA system (see [2]).

34 The base station shall support at least one member of the preferred set of frequency  
 35 assignments. The base station may support additional CDMA Channels.

1       3.6.1.2 Pilot Channel Operation

2       The Pilot Channel (see [2]) is a reference channel which the mobile station uses for  
3       acquisition, timing, and as a phase reference for coherent demodulation.

4       The base station shall continually transmit a Pilot Channel for every CDMA Channel  
5       supported by the base station, unless the base station is classified as a hopping pilot  
6       beacon.

7       3.6.1.3 Sync Channel Operation

8       The Sync Channel (see [2]) provides the mobile station with system configuration and  
9       timing information.

10      The base station shall transmit at most one Sync Channel for each supported CDMA  
11      Channel. The base station shall support a Sync Channel on at least one member of the  
12      preferred set of frequency assignments that it supports. The base station should support a  
13      Sync Channel on every member of the preferred set of frequency assignments that it  
14      supports.

15      If the base station operates in Band Class 0 or Band Class 3, and supports the Primary  
16      CDMA Channel, then the base station shall transmit a Sync Channel on the Primary CDMA  
17      Channel.

18      The base station shall continually send the *Sync Channel Message* on each Sync Channel  
19      that the base station transmits.

20      3.6.2 Common Channel Processing

21      3.6.2.1 Paging Channel and Forward Common Control Channel Procedures

22      During *Common Channel Processing*, the base station transmits the Paging Channel or the  
23      Forward Common Control Channel (see [2]) which the mobile station monitors to receive  
24      messages while the mobile station is in the *Mobile Station Idle State* and the *System Access  
25      State*.

26      The base station may transmit up to seven Paging Channels on each supported CDMA  
27      Channel. The base station may transmit up to seven Forward Common Control Channels  
28      and one Primary Broadcast Control Channel on each supported CDMA Channel.

29      For each Paging Channel that the base station transmits, the base station shall continually  
30      send valid Paging Channel messages (see 3.7.2), which may include the *Null Message* (see  
31      [4]).

32      The base station shall not send any message which is not completely contained within two  
33      consecutive Paging Channel or Forward Common Control Channel slots, unless the  
34      processing requirements for the message explicitly specify a different size limitation.<sup>1</sup>

<sup>1</sup>See, for example, [14] which specifies processing requirements for the *Data Burst Message*.

## 1    3.6.2.1.1 CDMA Channel Determination

2    The base station may send the *CDMA Channel List Message* and the *Extended CDMA*  
 3    *Channel List Message* on the Paging Channel. When the base station supports Broadcast  
 4    Control Channel, the base station shall send the *Extended CDMA Channel List Message* on  
 5    the Primary Broadcast Control Channel.

6    ~~To determine the mobile station's assigned CDMA Channel, the base station first~~  
 7    ~~determines a subset of CDMA channels in the Extended CDMA Channel List Message. The~~  
 8    ~~subset of CDMA channels is based on where the mobile station receives the Extended CDMA~~  
 9    ~~Channel List Message and the mobile station's capabilities of supporting RC greater than 2,~~  
 10   ~~Quick Paging Channel and transmit diversity, with which the mobile station is registered.~~

11   When the base station sends the *CDMA Channel List Message* on the Paging Channel, the  
 12   base station shall determine the assigned CDMA Channel ~~for MOB\_P\_REV<sub>s</sub> less than six~~  
 13   using the hash function specified in 2.6.7.1 with the following inputs:

- 14   • IMSI\_S based on the IMSI with which the mobile station registered (see 2.3.1)
- 15   • Number of CDMA Channels in the *CDMA Channel List Message* in accordance with  
     the procedures defined in 2.6.2.2.12.1 for mobile stations with:
  - 17   – MOB\_P\_REV<sub>s</sub> less than six.
  - 18   – MOB\_P\_REV<sub>s</sub> equal to six if the base station does not send the Extended CDMA  
     Channel List Message on the Paging Channel.
  - 20   – MOB\_P\_REV<sub>s</sub> greater than or equal to seven, if the base station does not send  
     the Extended CDMA Channel List Message on the paging channel and does not  
     support Primary Broadcast Control Channel.

23   When the base station sends the *Extended CDMA Channel List Message* on the Paging  
 24   Channel, the base station shall determine the assigned CDMA Channel using the hash  
 25   function specified in 2.6.7.1 with the following inputs:

- 26   • IMSI\_S based on the IMSI with which the mobile station registered (see 2.3.1)
- 27   • Number of CDMA Channels of the selected channel subset of CDMA channels in the  
     *Extended CDMA Channel List Message* in accordance with the procedures defined in  
     2.6.2.2.12.1 for mobile stations with:
  - 30   – MOB\_P\_REV<sub>s</sub> equal to six.
  - 31   – MOB\_P\_REV<sub>s</sub> greater than or equal to seven, if the base station does not support  
     Primary Broadcast Control Channel.

33   When the base station sends the *Extended CDMA Channel List Message* on the Primary  
 34   Broadcast Control Channel, the base station shall determine the assigned CDMA Channel  
 35   ~~for MOB\_P\_REV<sub>s</sub> greater than or equal to seven~~ using the hash function specified in 2.6.7.1  
 36   with the following inputs:

- 37   • IMSI\_S based on the IMSI with which the mobile station registered (see 2.3.1)

- 1     • Number of CDMA Channels of the selected channel subset of CDMA channels in the  
 2       *Extended CDMA Channel List Message* in accordance with the procedures defined in  
 3       2.6.2.2.12.2.

4     3.6.2.1.2 Common Channel Determination

5     To determine the mobile station's assigned Paging Channel or Forward Common Control  
 6       Channel, the base station shall use the hash function specified in 2.6.7.1 with the following  
 7       inputs:

- 8       • IMSI\_S based on the IMSI with which the mobile station registered (see 2.3.1)  
 9       • Number of Paging Channels or Forward Common Control Channels which the base  
 10      station transmits on the mobile station's assigned CDMA Channel.

11    3.6.2.1.3 Paging Slot Determination

12    To determine the assigned Paging Channel or Forward Common Control Channel slots for a  
 13      mobile station with a given slot cycle index, the base station shall select a number PGSLOT  
 14      using the hash function specified in 2.6.7.1 with the following inputs:

- 15      • IMSI\_S based on the IMSI with which the mobile station registered (see 6.3.1)  
 16      • Maximum number of Paging Channel or Forward Common Control Channel slots  
 17      (2048).

18    The assigned Paging Channel or Forward Common Control Channel slots for the mobile  
 19      station are those slots for which

$$\lfloor t/4 \rfloor - PGSLOT \bmod (16 \times T) = 0,$$

21    where  $t$  is the System Time in frames, and  $T$  is the slot cycle length in units of 1.28 seconds  
 22      given by

$$T = 2^i,$$

24    where  $i$  is the slot cycle index.

25    When the base station is able to determine that the mobile station is operating in the  
 26      slotted mode and is able to determine the mobile station's preferred slot cycle index, the  
 27      base station uses for the mobile station's slot cycle index the smaller of the mobile station's  
 28      preferred slot cycle index and the maximum slot cycle index.

29    When the base station is not able to determine whether the mobile station is operating in  
 30      the slotted mode, or the base station is not able to determine the mobile station's preferred  
 31      slot cycle index, the base station uses for the mobile station's slot cycle index the smaller of  
 32      the maximum slot cycle index and 1.

33    3.6.2.1.4 Message Transmission and Acknowledgment Procedures

34    The Paging Channel or Forward Common Control Channel acknowledgment procedures  
 35      facilitate the reliable exchange of messages between the base station and the mobile station  
 36      on the f-csch and r-csch. The acknowledgment procedures and requirements are described  
 37      in 3.1.1.2 and 3.1.2.1 of [4].

1    3.6.2.2 Overhead Information

2    The base station sends overhead messages to provide the mobile station with the  
3    information that it needs to operate with the base station. If the base station supports the  
4    Primary Broadcast Control Channel for overhead messages and is not a pilot beacon, it  
5    shall support the Forward Common Control Channel for all other general page information.

6    The base station with a P\_REV greater than six that supports Broadcast Control Channel  
7    shall send overhead messages on the Primary Broadcast Control Channel. The base station  
8    with a P\_REV greater than six that does not support the Broadcast Control Channel shall  
9    send overhead messages on each Paging Channel. The overhead messages sent on the  
10   Primary Broadcast Control Channel are:

- 11    1. *ANSI-41 System Parameters Message*
- 12    2. *User Zone Identification Message*
- 13    3. *Private Neighbor List Message*
- 14    4. *Extended Global Service Redirection Message*
- 15    5. *Extended CDMA Channel List Message*
- 16    6. *MC-RR Parameters Message*
- 17    7. *Universal Neighbor List Message*
- 18    8. *Enhanced Access Parameters Message*
- 19    9. *ANSI-41 RAND Message*

20    The overhead messages on the Paging Channel are:

- 21    1. *System Parameters Message*
- 22    2. *Neighbor List Message* (Band Class 0 only)
- 23    3. *Access Parameters Message*
- 24    4. *CDMA Channel List Message*
- 25    5. *Extended System Parameters Message*
- 26    6. *Extended Neighbor List Message* (band classes other than Band Class 0)
- 27    7. *General Neighbor List Message*
- 28    8. *Global Service Redirection Message*
- 29    9. *User Zone Identification Message*
- 30    10. *Private Neighbor List Message*
- 31    11. *Extended Global Service Redirection Message*
- 32    12. *Extended CDMA Channel List Message*

33    The base station shall maintain a configuration sequence number (CONFIG\_SEQ) for  
34    configuration messages transmitted on the Paging Channel, and shall increment  
35    CONFIG\_SEQ modulo 64 whenever the base station modifies the following messages:

- 1     1. *System Parameters Message*
- 2     2. *Neighbor List Message* (Band Class 0 only)
- 3     3. *CDMA Channel List Message*
- 4     4. *Extended System Parameters Message*
- 5     5. *Extended Neighbor List Message* (band classes other than Band Class 0)
- 6     6. *General Neighbor List Message*
- 7     7. *Global Service Redirection Message*
- 8     8. *User Zone Identification Message*
- 9     9. *Private Neighbor List Message*
- 10    10. *Extended Global Service Redirection Message*
- 11    11. *Extended CDMA Channel List Message*

12   The base station shall maintain a configuration sequence number (CONFIG\_SEQ) for  
 13   configuration messages transmitted on the Primary Broadcast Control Channel, and shall  
 14   increment CONFIG\_SEQ modulo 64 whenever the base station modifies the following  
 15   messages:

- 16    1. *ANSI-41 System Parameters Message*
- 17    2. *User Zone Identification Message*
- 18    3. *Private Neighbor List Message*
- 19    4. *Extended Global Service Redirection Message*
- 20    5. *Extended CDMA Channel List Message*
- 21    6. *MC-RR Parameters Message*
- 22    7. *Universal Neighbor List Message*

23   The base station shall maintain an access configuration sequence number  
 24   (ACC\_CONFIG\_SEQ) for the Access Channel, and shall increment ACC\_CONFIG\_SEQ  
 25   modulo 64 whenever the base station modifies the *Access Parameters Message*.

26   The base station shall maintain an access configuration sequence number  
 27   (ACC\_CONFIG\_SEQ) for the Enhanced Access Channel, and shall increment  
 28   ACC\_CONFIG\_SEQ modulo 64 whenever the base station modifies the *Enhanced Access  
 29   Parameters Message*.

30   On each Primary Broadcast Control Channel which the base station transmits, the base  
 31   station shall send each of the following system overhead messages at least once per T<sub>1b</sub>  
 32   seconds:

- 33    1. *Extended CDMA Channel List Message*
- 34    2. *ANSI-41 System Parameters Message*
- 35    3. *MC-RR Parameters Message*

## 1        4. Enhanced Access Parameters Message

## 2        5. Universal Neighbor List Message

3        If the base station supports Primary Broadcast Control Channels, and the base station is  
 4        sending the *ANSI-41 RAND Message*, it shall send it at least once per T<sub>1b</sub> seconds.

5        On each of the Paging Channels the base station transmits, the base station shall send  
 6        each of the following system overhead messages at least once per T<sub>1b</sub> seconds:

## 7        1. Access Parameters Message

## 8        2. CDMA Channel List Message

## 9        3. Extended System Parameters Message

## 10      4. System Parameters Message

11      For the messages sent on the Paging Channel, if the base station is operating in Band Class  
 12      1, Band Class 3, or Band Class 4 BAND\_CLASS is equal to '00001' or BAND\_CLASS is equal  
 13      to '00011' and MIN\_P\_REV is less than seven-six, the base station shall send the *Extended*  
 14      *Neighbor List Message*, and may also send the *General Neighbor List Message*. If the base  
 15      station is operating in Band Class 0 and MIN P REV is less than sevenBAND\_CLASS is  
 16      equal to '00000', the base station shall send the *Neighbor List Message*, and may also send  
 17      the *General Neighbor List Message*. If the base station is sending the *Neighbor List Message*,  
 18      it shall send it at least once per T<sub>1b</sub> seconds. If the base station is sending the *Extended*  
 19      *Neighbor List Message*, it shall send it at least once per T<sub>1b</sub> seconds. If the base station is  
 20      sending the *General Neighbor List Message*, it shall send it at least once per T<sub>1b</sub> seconds.

21      Overhead Messages sent on the Primary Broadcast Control Channel shall be transmitted on  
 22      a continuous basis, consecutively.

23      If the base station uses addressing modes requiring use of only the IMSI\_M\_S, independent  
 24      of values of the IMSI\_M\_11\_12 and MCC\_M, the base station shall set IMSI\_T\_SUPPORTED  
 25      to '0', MCC to '1111111111', and IMSI\_11\_12 to '1111111' in the *Extended System*  
 26      *Parameters Message*, MC-RR Parameters Message, and *ANSI-41 System Parameters*  
 27      *Message*.

28      If the base station sets IMSI\_T\_SUPPORTED to '1', the base station shall not set  
 29      PREF\_MSID\_TYPE to '00' in the *Extended System Parameters Message* and *ANSI-41 System*  
 30      *Parameters Message*.

31      The base station may send a *Global Service Redirection Message* on any given Paging  
 32      Channel. If the message is sent, the base station shall send it at least once per T<sub>1b</sub>  
 33      seconds.

34      If P\_REV is greater than or equal to six, the base station may send an *Extended Global*  
 35      *Service Redirection Message*. If the message is sent, the base station shall send it at least  
 36      once per T<sub>1b</sub> seconds. The base station may send this message to redirect only those  
 37      mobile stations with MOB\_P\_REV equal to or greater than six.

38      When both the *Global Service Redirection Message* and the *Extended Global Service*  
 39      *Redirection Message* are sent, the base station shall use the *Global Service Redirection*  
 40      *Message* for mobile stations with MOB\_P\_REV less than six, and shall use the *Extended*

1    Global Service Redirection Message for mobile stations with MOB\_P\_REV equal to or greater  
 2    than six. When only the Global Service Redirection Message is sent and this message is for  
 3    mobile station with MOB\_P\_REV less than six, the base station shall set EXCL\_P\_REV\_MS  
 4    to '1'.

5    If only the Global Service Redirection Message is sent and this message is for redirecting all  
 6    mobile stations, the base station shall set EXCL\_P\_REV\_MS to '0'.

7    The base station may send a User Zone Identification Message. If the message is sent, the  
 8    base station shall send it at least once per T<sub>1b</sub> seconds.

9    The base station may send a Private Neighbor List Message. If the message is sent, the base  
 10   station shall send it at least once per T<sub>1b</sub> seconds.

11   The base station may send an Extended CDMA Channel List [Message](#). If the message is sent,  
 12   the base station shall send it at least once per T<sub>1b</sub> seconds.

13   3.6.2.3 Mobile Station Directed Messages

14   The base station may send the following messages directed to a mobile station on the f-  
 15   csch. If the base station sends a message, the base station shall comply with the specified  
 16   requirements for sending the message, if any:

- 17     1. Abbreviated Alert Order
- 18     2. Audit Order
- 19     3. Authentication Challenge Message
- 20     4. Base Station Challenge Confirmation Order
- 21     5. Channel Assignment Message
- 22     6. Data Burst Message
- 23     7. Extended Channel Assignment Message
- 24     8. Feature Notification Message
- 25     9. General Page Message
- 26     10. Intercept Order
- 27     11. Local Control Order
- 28     12. Lock Until Power-Cycled Order
- 29     13. Maintenance Required Order
- 30     14. PACA Message
- 31     15. Registration Accepted Order
- 32     16. Registration Rejected Order
- 33     17. Registration Request Order
- 34     18. Release Order
- 35     19. Reorder Order

- 1        20. *Retry Order*
- 2        21. *Security Mode Command Message*
- 3        22. *Service Redirection Message*
- 4        23. *Service Release Message*
- 5        24. *Slotted Mode Order*
- 6        25. *SSD Update Message*
- 7        26. *Status Request Message*
- 8        27. *TMSI Assignment Message*
- 9        28. *Universal Page Message* (Forward Common Control Channel Only)
- 10      29. *Unlock Order*
- 11      30. *User Zone Reject Message*

12     The base station should send at least one *General Page Message* in each Paging Channel  
13    slot. The base station shall not omit a *General Page Message* in two adjacent Paging  
14    Channel slots.

15     The base station should send at least one *General Page Message* or *Universal Page Message*  
16    in each Forward Common Control Channel slot. The base station shall not omit both a  
17    *General Page Message* and a *Universal Page Message* in two adjacent slots.

#### 18    3.6.2.3.1 Processing when the General Page Message is Used

19     The base station shall use the following rules for selecting the Paging Channel or Forward  
20    Common Control Channel slot in which to send a message to a mobile station:

- 21     • If the base station is able to determine that the mobile station is operating in the  
22    non-slotted mode, the base station may send the message to the mobile station in  
23    any Paging Channel or Forward Common Control Channel slot.
- 24     • If the base station is able to determine that the mobile station is operating in the  
25    slotted mode and is able to determine the mobile station's slot cycle index (see  
26    2.6.2.1.1.3), the base station shall send the message at least once in an assigned  
27    Paging Channel slot for the mobile station (see 3.6.2.1.3), with the position within  
28    the slot subject to the following limitations:
  - 29        – If the mobile station has registered with a class 0 IMSI, the base station shall  
30    not send the message in the assigned Paging Channel slot after sending a  
31    *General Page Message* with CLASS\_0\_DONE set to '1' in that slot.
  - 32        – If the mobile station has registered with a class 1 IMSI, the base station shall  
33    not send the message in the assigned Paging Channel slot after sending a  
34    *General Page Message* with CLASS\_1\_DONE set to '1' in that slot.
  - 35        – If the mobile station has been assigned a TMSI, the base station shall not send  
36    the message in the assigned Paging Channel slot after sending a *General Page*  
37    *Message* with TMSI\_DONE set to '1' in that slot.

- If the base station is able to determine that the mobile station is operating in the slotted mode and that the mobile station is not waiting for a priority access channel assignment and that the slotted timer in the mobile station is not active, and the base station is able to determine the mobile station's slot cycle index (see 2.6.2.1.1.3), the base station shall send the message at least once in an assigned Forward Common Control Channel slot for the mobile station (see 3.6.2.1.3), with the position within the slot subject to the following limitations:
  - If the mobile station has registered with a class 0 IMSI, the base station shall not send the message in the assigned Forward Common Control Channel slot after sending a *General Page Message* with CLASS\_0\_DONE set to '1' in that slot.
  - If the mobile station has registered with a class 1 IMSI, the base station shall not send the message in the assigned Forward Common Control Channel slot after sending a *General Page Message* with CLASS\_1\_DONE set to '1' in that slot.
  - If the mobile station has been assigned a TMSI, the base station shall not send the message in the assigned Forward Common Control Channel slot after sending a *General Page Message* with TMSI\_DONE set to '1' in that slot.
- If the base station is able to determine that the mobile station is operating in the slotted mode and that the mobile station is waiting for a priority access channel assignment, or that the slotted timer in the mobile station is active, the base station may send the message to the mobile station in any Forward Common Control Channel slot with the position within the slot subject to the following limitation:
  - If the mobile station has registered with a class 0 IMSI, the base station shall not send the message in any Forward Common Control Channel slot after sending a *General Page Message* with CLASS\_0\_DONE set to '1' in that slot.
  - If the mobile station has registered with a class 1 IMSI, the base station shall not send the message in any Forward Common Control Channel slot after sending a *General Page Message* with CLASS\_1\_DONE set to '1' in that slot.
  - If the mobile station has been assigned a TMSI, the base station shall not send the message in any Forward Common Control Channel slot after sending a *General Page Message* with TMSI\_DONE set to '1' in that slot.
- If the base station is not able to determine whether the mobile station is operating in the non-slotted mode, or the base station is not able to determine the mobile station's slot cycle index, the base station shall assume that the mobile station is operating in the slotted mode with a slot cycle index which is the smaller of MAX\_SLOT\_CYCLE\_INDEX and 1. The base station shall send the message at least once in an assigned Paging Channel or Forward Common Control Channel slot for the mobile station (see 3.6.2.1.3), with the position within the slot subject to the following limitations:
  - If the mobile station has registered with a class 0 IMSI, the base station shall not send the message in the assigned Paging Channel or Forward Common Control Channel slot after sending a *General Page Message* with CLASS\_0\_DONE set to '1' in that slot.

- If the mobile station has registered with a class 1 IMSI, the base station shall not send the message in the assigned Paging Channel or Forward Common Control Channel slot after sending a *General Page Message* with CLASS\_1\_DONE set to ‘1’ in that slot.
- If the mobile station has been assigned a TMSI, the base station shall not send the message in the assigned Paging Channel or Forward Common Control Channel slot after sending a *General Page Message* with TMSI\_DONE set to ‘1’ in that slot.

The base station should send messages directed to mobile stations operating in the slotted mode as the first messages in the slot.

If the base station sends a *General Page Message* with ORDERED\_TMSIS set to ‘1’ in a slot, the base station shall order page records with PAGE\_CLASS equal to ‘10’ in ascending order such that if a particular TMSI\_CODE value for one page record is greater than the TMSI\_CODE value for another page record, the page record with the greater TMSI\_CODE value is sent later in the slot.

#### 3.6.2.3.2 Processing when the Universal Page Message is Used

The base station shall use the following rules for selecting the Forward Common Control Channel slot in which to send a message to a mobile station:

- If the base station is able to determine that the mobile station is operating in the non-slotted mode, the base station may send the message to the mobile station in any Forward Common Control Channel slot.
- If the base station is able to determine that the mobile station is capable of operating in the slotted mode and that the mobile station is waiting for a priority access channel assignment, or that the slotted timer in the mobile station is active, the base station may send the message to the mobile station in any Forward Common Control Channel slot with the position within the slot subject to the following limitation:
  - The base station shall not send the message later in the slot than a *Universal Page Message* which lacks a mobile station-directed message announcement and which lacks a mobile station-addressed page (see 3.7.2.3.2.25) for that mobile station.
- If the base station is able to determine that the mobile station is operating in the slotted mode and that the mobile station is not waiting for a priority access channel assignment and that the slotted timer in the mobile station is not active and the base station is able to determine the mobile station’s slot cycle index (see 2.6.2.1.1.3.3), the base station shall send the message at least once in an assigned Forward Common Control Channel slot for the mobile station (see 3.6.2.1.3) or in the following slot, with the position within these two slots subject to the following limitation:

- 1     – The base station shall not send the message later in the slot than a *Universal*  
2       *Page Message* that lacks a mobile station-directed message announcement and  
3       which lacks a mobile station-addressed page (see 3.7.2.3.2.25) for that mobile  
4       station.
- 5     • If the base station is not able to determine whether the mobile station is operating in  
6       the non-slotted mode, or the base station is not able to determine the mobile  
7       station's slot cycle index, the base station shall assume that the mobile station is  
8       operating in the slotted mode with a slot cycle index which is the smaller of  
9       MAX\_SLOT\_CYCLE\_INDEX and 1. The base station shall send the message at least  
10      once in an assigned Forward Common Control Channel slot for the mobile station  
11      (see 3.6.2.1.3), or in the following slot, with the position within these two slots  
12      subject to the following limitation:
  - 13       – The base station shall not send the message later in the slot than a *Universal*  
14           *Page Message* that lacks a mobile station-directed message announcement and  
15           which lacks a mobile station-addressed page (see 3.7.2.3.2.25) for that mobile  
16           station.

17   The base station should send messages directed to both mobile stations operating in the  
18   slotted mode and mobile stations operating in the non-slotted mode later in the slot than  
19   the *Universal Page Message*.

#### 20   3.6.2.4 Broadcast Messages

##### 21   3.6.2.4.1 Broadcast Messages Sent on the Paging Channel

22   The base station may transmit *Data Burst Messages* directed to broadcast addresses. When  
23   transmitting broadcast messages that are to be received by mobile stations operating in the  
24   slotted mode, the base station may use broadcast page records (see 3.7.2.3.2.17) in  
25   accordance with the broadcast procedures specified in 3.6.2.4.1 to announce the presence  
26   of broadcast *Data Burst Messages* on the Paging Channel. The base station should use the  
27   rules specified in 3.6.2.4.1.1 for selecting the Paging Channel slot in which to send a  
28   broadcast *Data Burst Message*.

##### 29   3.6.2.4.1.1 Broadcast Procedures for Slotted Mode

30   The base station may announce the presence of broadcast Data Burst Messages on the  
31   Paging Channel by paging, using a broadcast address with PAGE\_CLASS equal to '11' and  
32   PAGE\_SUBCLASS equal to '00'.

##### 33   3.6.2.4.1.1.1 General Overview

34   The base station may transmit Data Burst Messages directed to broadcast addresses. Since  
35   mobile stations operating in slotted mode do not constantly monitor a Paging Channel, it is  
36   necessary to use special procedures to ensure that mobile stations operating in the slotted  
37   mode are able to receive the message. The base station may either send a broadcast  
38   message in many slots, or may send a broadcast message in a predetermined paging slot.  
39   This single transmission of the pending broadcast message may be announced by a

preceding “broadcast page”. A broadcast page is a *General Page Message* record with the PAGE\_CLASS field set to ‘11’.

If pending transmission of the broadcast message is announced by the broadcast page, mobile stations use the BC\_ADDR and the BURST\_TYPE fields of the broadcast page record to determine whether or not to receive the announced broadcast message. The base station sets the value of the BC\_ADDR according to the requirements of the standards related to the BURST\_TYPE. There is a predetermined timing relationship between the sending of the broadcast page and the sending of the related broadcast message. This timing relationship allows mobile stations to determine which slot to monitor in order to receive the broadcast message.

To reduce the overhead for sending broadcast pages or broadcast messages, a base station may use periodic broadcast paging (see 3.6.2.4.1.2.1.2). When periodic broadcast paging is enabled, broadcast pages or broadcast messages are sent only once during a broadcast paging cycle. Mobile stations that are operating in the slotted mode and are configured to receive broadcast messages monitor the paging channel during the slot in which the broadcast pages or broadcast messages are sent. For the purpose of periodic broadcast paging, system time is divided into broadcast paging cycles, each having a duration of  $(\mathbf{B} + 3)$  Paging Channel slots, where **B** is a power of two. In each broadcast paging cycle, the first paging slot may contain broadcast pages or broadcast messages.

#### 3.6.2.4.1.1.2 Requirements for Sending Broadcast Messages

##### 3.6.2.4.1.1.2.1 Broadcast Delivery Options

When transmitting broadcast messages that are to be received by mobile stations operating in the slotted mode and monitoring the Paging Channel, the base station shall use one of the two following procedures to transmit a broadcast message.

###### 3.6.2.4.1.1.2.1.1 Method 1: Multi-Slot Broadcast Message Transmission

The base station may send a broadcast message using this method without regard to whether periodic broadcast paging is enabled or disabled (see 3.6.2.4.1.2.3).

When using this method, the base station shall send the broadcast message in a sufficient number of paging slots such that it may be received by any mobile station that is operating in the slotted mode. For example, the base station may send the broadcast message in **M** successive paging slots where **M** is the number of slots in a maximum paging cycle as defined in 2.6.2.1.1.3.3.

###### 3.6.2.4.1.1.2.1.2 Method 2: Periodic Broadcast Paging

If the base station sends a broadcast message using this method, then the base station shall enable periodic broadcast paging (see 3.6.2.4.1.2.3).

To deliver a broadcast message using this method, the base station should perform the following:

- If the number and size of the broadcast messages waiting to be sent are such that the messages can be sent in a single slot, the base station should send the broadcast messages in the first slot of the next broadcast paging cycle (see 2.6.2.1.1.3.3).
- If there is a single broadcast message waiting to be sent, the base station should send the broadcast message beginning in the first slot of the next broadcast paging cycle (see 2.6.2.1.1.3.3).
- Otherwise, the base station should first include a broadcast page for each broadcast message to be sent, in a *General Page Message* that is sent in the first slot of the next broadcast paging cycle (see 2.6.2.1.1.3.3). The base station should then send the related broadcast messages in the paging slots specified in 3.6.2.4.1.2.4.

#### 3.6.2.4.1.1.2.2 Duplicate Broadcast Message Transmission

If the base station sends a broadcast message or a broadcast page and an associated broadcast message more than once when periodic broadcast paging is enabled (see 3.6.2.4.1.2.3), then all repetitions of the broadcast message or the broadcast page and the associated broadcast message should be sent within  $4 \times (\mathbf{B} + 3)$  paging slots of the paging slot in which the broadcast message or broadcast page was first sent. ( $\mathbf{B} + 3$  is the duration of the broadcast paging cycle as defined in 2.6.2.1.1.3.3).

When a base station sends a broadcast message or a broadcast page when periodic broadcast paging is enabled (see 3.6.2.4.1.2.3), and the base station has a second, different broadcast message to send which contains identical BURST\_TYPE and BC\_ADDR fields, then the base station shall wait  $4 \times (\mathbf{B} + 3)$  paging slots after the first slot of the broadcast paging cycle containing the final sending of the first broadcast message or broadcast page before sending the second, different broadcast message or related broadcast page.

#### 3.6.2.4.1.1.2.3 Periodic Broadcast Paging

The base station uses the BCAST\_INDEX field of the *Extended System Parameters Message* to specify the current state of periodic broadcast paging to all mobile stations.

To enable periodic broadcast paging, the base station shall set the BCAST\_INDEX field of the *Extended System Parameters Message* to an unsigned 3-bit number in the range 1-7, equal to the broadcast slot cycle index as defined in 2.6.2.1.1.3.3. The value of the BCAST\_INDEX field may exceed the value of the MAX\_SLOT\_CYCLE\_INDEX field sent in the *System Parameters Message*.

To indicate that periodic broadcast paging is either disabled or is not supported by the base station, the base station shall set the BCAST\_INDEX field to '000'.

#### 3.6.2.4.1.1.2.4 Broadcast Message Slot Determination

When a base station uses broadcast paging, it shall determine the slot in which to send the corresponding broadcast message using the following procedures:

- The base station shall consider a broadcast page to have been sent in the paging slot in which the *General Page Message* containing the broadcast page began.

- 1     • The reference slot is defined as the paging slot in which the broadcast page was  
2       sent.
- 3     • Let n represent the ordinal number of the broadcast page relative to other broadcast  
4       pages that are contained in the same *General Page Message* (n = 1, 2, 3,...). The  
5       base station shall send the broadcast message announced by broadcast page n in  
6       the paging slot that occurs  $n \times 3$  paging slots after the reference slot.

7     3.6.2.4.2 Broadcast Messages Sent on the Broadcast Control Channel

8     The base station may transmit *Data Burst Messages* directed to broadcast addresses. When  
9       transmitting broadcast messages that are to be received by mobile stations operating in the  
10      slotted mode, the base station may use enhanced broadcast pages (see 3.7.2.3.2.17) in  
11      accordance with the broadcast procedures specified in 3.6.2.4.2 to announce the presence  
12      of broadcast *Data Burst Messages* on the Broadcast Control Channel. The base station  
13      should use the rules specified in 3.6.2.4.2.1 for selecting the Broadcast Control Channel  
14      slot in which to send a broadcast *Data Burst Message*.

15    3.6.2.4.2.1 Broadcast Procedures for Slotted Mode

16    The base station may announce the presence of broadcast *Data Burst Messages* on the  
17      Broadcast Control Channel by sending an enhanced broadcast page.

18    3.6.2.4.2.1.1 General Overview

19    The base station may transmit *Data Burst Messages* directed to broadcast addresses. Since  
20      mobile stations operating in slotted mode do not constantly monitor a Broadcast Control  
21      Channel, it is necessary to use special procedures to ensure that mobile stations operating  
22      in the slotted mode are able to receive the message. The base station may either send an  
23      enhanced broadcast page in many Forward Common Control Channel slots, directing the  
24      mobile station to the appropriate Broadcast Control Channel slot, or the base station may  
25      also send an enhanced broadcast page in a predetermined slot, called a broadcast slot, on  
26      the Forward Common Control Channel, directing the mobile station to a specified Broadcast  
27      Control Channel slot.

28    If pending transmission of the broadcast message is announced by the enhanced broadcast  
29      page, mobile stations use the BC\_ADDR and the BURST\_TYPE fields of the enhanced  
30      broadcast page record to determine whether or not to receive the announced broadcast  
31      message. The base station sets the value of the BC\_ADDR according to the requirements of  
32      the standards related to the BURST\_TYPE. The timing relationship between the sending of  
33      the enhanced broadcast page and the sending of the related broadcast message is specified  
34      in the enhanced broadcast page. This timing relationship allows mobile stations to  
35      determine which Broadcast Control Channel slot to monitor in order to receive the  
36      broadcast message.

37    To reduce the overhead for sending broadcast pages or broadcast messages, a base station  
38      may use Periodic Enhanced Broadcast Paging (see 3.6.2.4.2.2.1.2). When Periodic  
39      Enhanced Broadcast Paging is enabled, enhanced broadcast pages are sent only once  
40      during a broadcast paging cycle. Mobile stations that are operating in the slotted mode and  
41      are configured to receive broadcast messages monitor the Forward Common Control

1 Channel during the broadcast slot in which the enhanced broadcast pages are sent. For  
 2 the purpose of Periodic Enhanced Broadcast Paging, system time is divided into broadcast  
 3 paging cycles, each having a duration of (**B** + 7) Forward Common Control Channel slots,  
 4 where **B** is a power of two. In each broadcast paging cycle, the first Forward Common  
 5 Control Channel slot may contain enhanced broadcast pages.

6 3.6.2.4.2.1.2 Requirements for Sending Broadcast Messages

7 3.6.2.4.2.1.2.1 Broadcast Delivery Options

8 When transmitting broadcast messages that are to be received by mobile stations operating  
 9 in the slotted mode and monitoring the Forward Common Control Channel/Broadcast  
 10 Control Channel, the base station shall use one of the two following procedures to transmit  
 11 a broadcast message.

12 3.6.2.4.2.1.2.1.1 Method 1: Multi-Slot Enhanced Broadcast Paging

13 The base station may send a broadcast message using this method without regard to  
 14 whether Periodic Enhanced Broadcast Paging is enabled or disabled (see 3.6.2.4.2.2.3).

15 When using this method, the base station shall send the enhanced broadcast page in a  
 16 sufficient number of Forward Common Control Channel slots such that it may be received  
 17 by any mobile station that is operating in the slotted mode. The enhanced broadcast page  
 18 then directs mobile stations to a subsequent Broadcast Control Channel slot.

19 The base station shall not send an enhanced broadcast page that directs a mobile station to  
 20 receive a broadcast message on the Primary Broadcast Control Channel.

21 The base station shall not send a broadcast message on the Forward Common Control  
 22 Channel.

23 3.6.2.4.2.1.2.1.2 Method 2: Periodic Enhanced Broadcast Paging

24 If the base station sends a broadcast message using this method, then the base station  
 25 shall enable Periodic Enhanced Broadcast Paging (see 3.6.2.4.2.2.3).

26 To deliver a broadcast message using this method, the base station should perform the  
 27 following:

- 28 • The base station should first include an enhanced broadcast page for each  
 29 broadcast message to be sent, in a page that is sent on the Forward Common  
 30 Control Channel in the first slot of the next broadcast paging cycle (see  
 31 2.6.2.1.1.3.3). The base station should then send the corresponding broadcast  
 32 messages in the Broadcast Control Channel slots specified in 3.6.2.4.2.2.4.

33 The base station shall not send an enhanced broadcast page that directs a mobile station to  
 34 receive a broadcast message on the Primary Broadcast Control Channel.

35 The base station shall not send a broadcast message on the Forward Common Control  
 36 Channel.

1    3.6.2.4.2.1.2.2 Duplicate Broadcast Message Transmission

2    If the base station sends an enhanced broadcast page and an associated broadcast message  
 3    more than once when Periodic Enhanced Broadcast Paging is enabled (see 3.6.2.4.2.2.3),  
 4    then all repetitions of the enhanced broadcast page should be sent within  $4 \times (\mathbf{B} + 7)$  slots  
 5    of the slot in which the enhanced broadcast page was first sent. ( $\mathbf{B} + 7$  is the duration of  
 6    the broadcast paging cycle as defined in 2.6.2.1.1.3.3).

7    When a base station sends an enhanced broadcast page when Periodic Enhanced Broadcast  
 8    Paging is enabled (see 3.6.2.4.2.2.3), and the base station has a second, different broadcast  
 9    message to send which contains identical BURST\_TYPE and BC\_ADDR fields, then the base  
 10   station shall wait  $4 \times (\mathbf{B} + 7)$  paging slots after the first slot of the broadcast paging cycle  
 11   containing the final sending of the first broadcast message or enhanced broadcast page  
 12   before sending the second, different enhanced broadcast page.

13   3.6.2.4.2.1.2.3 Periodic Enhanced Broadcast Paging

14   The base station uses the BCAST\_INDEX fields of the *MC-RR Parameters Message* to specify  
 15   the current state of Periodic Enhanced Broadcast Paging to all mobile stations.

16   To enable Periodic Enhanced Broadcast Paging, the base station shall set the  
 17   BCAST\_INDEX field to a non-zero unsigned 3-bit number equal to the broadcast slot cycle  
 18   index as defined in 2.6.2.1.1.3.3.

19   To indicate that Periodic Enhanced Broadcast Paging is either disabled or is not supported  
 20   by the base station, the base station shall set the BCAST\_INDEX field to '000'.

21   3.6.2.4.2.1.2.4 Broadcast Message Slot Determination

22   When a base station uses broadcast message announcement, it shall determine the slot in  
 23   which to send the corresponding broadcast message using the following procedures:

- 24   • The base station shall consider an enhanced broadcast page to have been sent in  
 25       the Forward Common Control Channel slot in which the page message containing  
 26       the enhanced broadcast page began.
- 27   • The reference slot is defined as the Forward Common Control Channel slot in which  
 28       the enhanced broadcast page was sent.
- 29   • The base station shall send a first transmission of the broadcast message  
 30       announced by the enhanced broadcast page in the Broadcast Control Channel slot  
 31       which begins  $40 \text{ ms} \times (1 + \text{TIME\_OFFSET})$  later than the beginning of the slot in  
 32       which the page message containing the enhanced broadcast page began. The base  
 33       station may send a repetition of the broadcast message announced by the enhanced  
 34       broadcast page in the Broadcast Control Channel slot which begins  $40 \text{ ms} \times (1 +$   
 35       REPEAT\_TIME\_OFFSET) later than the Broadcast Control Channel slot in which the  
 36       first transmission began.

37   3.6.2.5 Quick Paging Channel Processing

38   The base station may support a Quick Paging Channel. The base station may transmit up  
 39   to three Quick Paging Channels on each supported CDMA Channel.

1 When a Quick Paging Channel is supported, the base station shall transmit paging  
 2 indicators to the mobile station in the assigned positions in the assigned Quick Paging  
 3 Channel slot. The base station shall set the paging indicators to “ON” if the mobile station  
 4 is operating in the slotted mode and is to receive the Paging Channel or Forward Common  
 5 Control Channel in the assigned Paging Channel or Forward Common Control Channel slot  
 6 following its assigned Quick Paging Channel slot.

7 When the base station changes CONFIG\_MSG\_SEQ, the base station should set the paging  
 8 indicators for all mobile stations to “ON” for each Quick Paging Channel slot for a time  
 9 interval T (in units of 1.28 seconds), such that

$$10 \quad T = N \times 2^{\text{MAX\_SLOT\_CYCLE\_INDEX}},$$

11 where N is an integer greater than or equal to one.

12 If the base station supports configuration change indicators on the Quick Paging Channel,  
 13 when the base station changes CONFIG\_MSG\_SEQ, the base station shall set all  
 14 configuration change indicators to “ON” for each Quick Paging Channel slot for a time  
 15 interval of  $T_{31m}$  seconds. At all other times, the base station shall set all configuration  
 16 change indicators to “OFF”.

17 If the base station does not support configuration change indicators on the Quick Paging  
 18 Channel, then the base station shall set all configuration change indicators to “OFF”.

19 When the base station sends a broadcast message using Multi-Slot Broadcast Message  
 20 Transmission (see [3.6.2.4.1.1.2.1.1-3.6.2.4.1.2.1.1](#)), the base station should set all paging  
 21 indicators to “ON” for the Quick Paging Channel slot which begins 100 ms prior to the  
 22 beginning of the Paging Channel slot in which the broadcast message begins.

23 When the base station sends an enhanced broadcast page using Multi-Slot Enhanced  
 24 Broadcast Paging (see 3.6.2.4.2.1.2.1.1), the base station should set all paging indicators to  
 25 “ON” for the Quick Paging Channel slot which begins 100 ms prior to the beginning of the  
 26 Forward Common Control Channel slot in which the message containing the enhanced  
 27 broadcast page begins.

28 When the base station sends an enhanced broadcast page using Periodic Enhanced  
 29 Broadcast Paging (see 3.6.2.4.2.1.2.1.2), the base station should set all broadcast indicators  
 30 to “ON” for the Quick Paging Channel broadcast slot which begins 100 ms prior to the  
 31 beginning of the Forward Common Control Channel slot in which the message containing  
 32 the enhanced broadcast page begins. At all other times, the base station shall set all  
 33 broadcast indicators for a Quick Paging Channel broadcast slot to “OFF”.

34 The base station shall set all reserved indicators to “OFF”.

### 35 3.6.2.5.1 Quick Paging Channel Determination

36 To determine the mobile station’s assigned Quick Paging Channel, the base station shall  
 37 use the hash function specified in 2.6.7.1 with the following inputs:

- 38 • IMSI\_S based on the IMSI with which the mobile station registered (see 2.3.1)
- 39 • Number of Quick Paging Channels which the base station transmits on the mobile  
 40 station’s assigned CDMA Channel.

## 1    3.6.2.5.2 Quick Paging Channel Slot Determination

2    The mobile station's assigned Quick Paging Channel slots are those slots for which

3                         
$$\lfloor(t+5)/4\rfloor - \text{PGSLOT} \bmod (16 \times T) = 0,$$

4    where  $t$  is the System Time in frames, PGSLOT is selected in the range 0 to 2047 by using  
5    the hash function specified in 2.6.7.1, and  $T$  is the slot cycle length in units of 1.28 seconds  
6    such that

7                         
$$T = 2^i,$$

8    and  $i$  is the slot cycle index.

## 9    3.6.2.5.3 Paging Indicator Position Determination

10   To determine the mobile station's assigned paging indicators, the base station shall use the  
11   same formula as used by the mobile station (see 2.6.2.1.2.2).

## 12   3.6.2.5.4 Configuration Change Indicator Position Determination

13   Configuration change indicators are transmitted on the first Quick Paging Channel.

14   If the Quick Paging Channel data rate is 2400 bps (indicator rate is 4800 bps), the bit  
15   positions of the first pair of configuration change indicators in a Quick Paging Channel slot  
16   shall be the last two bits in the first 40 ms half of the Quick Paging Channel slot. The bit  
17   positions of the second pair of configuration change indicators in a Quick Paging Channel  
18   slot shall be the last two bits in the Quick Paging Channel slot.19   If the Quick Paging Channel data rate is 4800 bps (indicator rate is 9600 bps), the bit  
20   positions of the first four configuration change indicators in a Quick Paging Channel slot  
21   shall be the last four bits in the first 40 ms half of the Quick Paging Channel slot. The bit  
22   position of the second four configuration change indicators in a Quick Paging Channel slot  
23   shall be the last four bits in the Quick Paging Channel slot.

## 24   3.6.2.5.5 Broadcast Indicator Position Determination

25   Broadcast indicators are transmitted on the first Quick Paging Channel.

26   On the first Quick Paging Channel, if the Quick Paging Channel data rate is 2400 bps  
27   (indicator rate is 4800 bps), the broadcast indicator positions are described as follows:

- 28   • The two Quick Paging Channel bit positions prior to the last two bits in the first 40
- 
- 29   ms half of a Quick Paging Channel broadcast slot are broadcast indicators. The two
- 
- 30   Quick Paging Channel bit positions prior to the last two bits in a Quick Paging
- 
- 31   Channel broadcast slot are also broadcast indicators.

32   On the first Quick Paging Channel, if the Quick Paging Channel data rate is 4800 bps  
33   (indicator rate is 9600 bps), the broadcast indicator positions are described as follows:

- 34   • The four Quick Paging Channel bit positions prior to the last four bits in the first 40
- 
- 35   ms half of a Quick Paging Channel broadcast slot are broadcast indicators. The four
- 
- 36   Quick Paging Channel bit positions prior to the last four bits in a Quick Paging
- 
- 37   Channel broadcast slot are also broadcast indicators.

1       3.6.2.5.6 Reserved Indicator Positions

2       On the first Quick Paging Channel, if the Quick Paging Channel data rate is 2400 bps  
 3       (indicator rate is 4800 bps), the reserved indicator positions are described as follows:

- 4           • The two Quick Paging Channel bit positions prior to the last two bits in the first 40  
 5           ms half of a Quick Paging Channel slot that is not a Quick Paging Channel  
 6           Broadcast slot are reserved. The two Quick Paging Channel bit positions prior to  
 7           the last two bits in a Quick Paging Channel slot that is not a Quick Paging Channel  
 8           Broadcast slot are also reserved.

9       On the first Quick Paging Channel, if the Quick Paging Channel data rate is 4800 bps  
 10      (indicator rate is 9600 bps), the reserved indicator positions are described as follows:

- 11           • The four Quick Paging Channel bit positions prior to the last four bits in the first 40  
 12           ms half of a Quick Paging Channel slot that is not a Quick Paging Channel  
 13           Broadcast slot are reserved. The four Quick Paging Channel bit positions prior to  
 14           the last four bits in a Quick Paging Channel slot that is not a Quick Paging Channel  
 15           Broadcast slot are also reserved.

16       On Quick Paging Channels other than the first Quick Paging Channel, if the Quick Paging  
 17      Channel data rate is 2400 bps (indicator rate is 4800 bps), the reserved indicator positions  
 18      are described as follows:

- 19           • The last four Quick Paging Channel bit positions in the first 40 ms half of a Quick  
 20           Paging Channel slot are reserved. The last four Quick Paging Channel bit positions  
 21           in a Quick Paging Channel slot are also reserved.

22       On Quick Paging Channels other than the first Quick Paging Channel, if the Quick Paging  
 23      Channel data rate is 4800 bps (indicator rate is 9600 bps), the reserved indicator positions  
 24      are described as follows:

- 25           • The last eight Quick Paging Channel bit positions in the first 40 ms half of a Quick  
 26           Paging Channel slot are reserved. The last eight Quick Paging Channel bit positions  
 27           in a Quick Paging Channel slot are also reserved.

28       3.6.3 Access Channel and Enhanced Access Channel Processing

29       During *Access Channel Processing*, the base station monitors the Access Channel to receive  
 30      messages which the mobile station sends while the mobile station is in the *System Access  
 31      State*.

32       Each Access Channel is associated with a Paging Channel. Up to 32 Access Channels can  
 33      be associated with a Paging Channel. The number of Access Channels associated with a  
 34      particular Paging Channel is specified in the *Access Parameters Message* sent on that  
 35      Paging Channel.

36       If the base station supports Access Channels, the base station shall continually monitor all  
 37      Access Channels associated with each Paging Channel that the base station transmits.

38       If the base station supports Enhanced Access Channels, then during *Enhanced Access  
 39      Channel Processing*, the base station monitors the Enhanced Access Channel to receive

1 messages which the mobile station sends while the mobile station is in the *System Access*  
 2 *State*.

3 Each Enhanced Access Channel is associated with a Forward Common Control Channel.  
 4 Up to 32 Enhanced Access Channels can be associated with a Forward Common Control  
 5 Channel. The number of Enhanced Access Channels associated with a particular Forward  
 6 Common Control Channel is specified in the *Enhanced Access Parameters Message* sent on  
 7 the Primary Broadcast Control Channel.

8 If the base station supports Enhanced Access Channel, the base station shall continually  
 9 monitor all Enhanced Access Channels associated with each Forward Common Control  
 10 Channel that the base station transmits.

11 3.6.3.1 Reserved

12 3.6.3.2 Reserved

13 3.6.3.3 Response to Page Response Message

14 If the base station receives a *Page Response Message*, the base station should send a  
 15 *Channel Assignment Message*, an *Extended Channel Assignment Message*, or a *Release*  
 16 *Order*. The base station may also start authentication procedures (see 2.3.12), start TMSI  
 17 assignment procedures (see 2.3.15), send a *Data Burst Message*, or request status  
 18 information records with the *Status Request Message*. If the base station is operating with  
 19 the mobile station in Band Class 0, the base station may also request the status  
 20 information records with the *Status Request Order*.

21 If the base station sends the *Extended Channel Assignment Message*, the base station may  
 22 include more than one pilot to be in the Active Set.

23 If the base station sends a *Channel Assignment Message* or an *Extended Channel*  
 24 *Assignment Message*, the base station shall perform the following:

- 25 • If the message directs the mobile station to a CDMA Traffic Channel, the base  
 26 station shall begin *Traffic Channel Processing* (see 3.6.4) for the mobile station.
- 27 • If the message directs the mobile station to an 800 MHz wide analog voice channel,  
 28 the base station shall follow the procedure described in [6].
- 29 • If the message directs the mobile station to an 800 MHz narrow analog voice  
 30 channel, the base station shall follow the procedure described in 3.6.5A of [22].
- 31 • Layer 3 shall send a *mobile station inactive on common channel* indication to Layer 2  
 32 (see 3.1.1.2.2 of [4]).

33 3.6.3.4 Response to Orders

34 No requirements.

35 3.6.3.5 Response to Origination Message

36 If the base station receives an *Origination Message*, the base station should send a *Channel*  
 37 *Assignment Message*, an *Extended Channel Assignment Message*, an *Intercept Order*, a

1    *Reorder Order*, a *Release Order*, a *Retry Order*, a *PACA Message*, or a *Service Redirection*  
 2    *Message*. The base station may also commence authentication procedures (see 2.3.12) or  
 3    TMSI assignment procedures (see 2.3.15). The base station may also request status  
 4    information records with the *Status Request Message*. If the base station is operating with  
 5    the mobile station in Band Class 0, the base station may also request status information  
 6    records with the *Status Request Order*.

7    If the base station sends the *Extended Channel Assignment Message*, the base station may  
 8    include more than one pilot to be in the Active Set.

9    If the base station sends a *Channel Assignment Message* or an *Extended Channel*  
 10   *Assignment Message*, the base station shall perform the following:

- 11     • If the message directs the mobile station to a CDMA Traffic Channel, the base  
 12       station shall begin *Traffic Channel Processing* (see 3.6.4) for the mobile station.
- 13     • If the message directs the mobile station to an 800 MHz wide analog voice channel,  
 14       the base station shall follow the procedure described in [2].
- 15     • If the message directs the mobile station to an 800 MHz narrow analog voice  
 16       channel, the base station shall follow the procedure described in 3.6.5A of [22].
- 17     • The base station shall raise a *mobile station inactive on common channel* indication  
 18       for the mobile station.

19    If the base station sends a *Channel Assignment Message*, the base station shall not set  
 20   RESPOND equal to '0' when ASSIGN\_MODE = '001', ASSIGN\_MODE = '010', or  
 21   ASSIGN\_MODE = '101'. If the base station sends an *Extended Channel Assignment*  
 22   *Message*, the base station shall not set RESPOND equal to '0' when ASSIGN\_MODE = '001'  
 23   or ASSIGN\_MODE = '010'.

24    If the base station receives an *Origination Message* and the **GLOBAL EMERGENCY CALL**  
 25   indicator is set to '1' and the service associated with this origination is a voice service, the  
 26   base station shall recognize this as an emergency call and should process the message  
 27   using an implementation-dependent procedure which may include ignoring the dialed  
 28   digits. If the base station receives an *Origination Message* and the  
 29   **GLOBAL EMERGENCY CALL** indicator is set to '1' and the service associated with this  
 30   origination is not a voice service, the base station may recognize this as an emergency call  
 31   and should process the message using an implementation-dependent procedure which may  
 32   include ignoring the dialed digits.

### 33    3.6.3.6 Response to Registration Message

34    If the base station receives a *Registration Message*, the base station may send a *Registration*  
 35   *Accepted Order*, a *Registration Rejected Order*, or a *Service Redirection Message*. The base  
 36   station may also start authentication procedures (see 2.3.12), may start TMSI assignment  
 37   procedures (see 2.3.15), or may request status information records with the *Status Request*  
 38   *Message*. If the base station is operating with the mobile station in Band Class 0, the base  
 39   station may also request the status information records with a *Status Request Order*.

40    If the *Registration Message* specifies a power-down registration, Layer 3 shall send a *mobile*  
 41   *station inactive on common channel* indication to Layer 2 (see 3.1.1.2.2 of [4]).

When responding to a *Registration Message* that requests extended encryption, if the base station decides to turn on extended encryption and the CMEAKEY is available at the base station, the base station shall send a *Registration Accepted Order* with encryption information. Before the CMEAKEY is available, the base station may send a *Registration Accepted Order* without any encryption information. When the CMEAKEY becomes available, if the base station decides to turn on extended encryption, the base station shall send a *Registration Accepted Order* with encryption information.

### 3.6.3.7 Response to Data Burst Message

No requirements.

### 3.6.3.8 Reserved

### 3.6.3.9 Reserved

### 3.6.3.10 Service Redirection

If the base station sends a *Service Redirection Message* to the mobile station, Layer 3 shall send a *mobile station inactive on common channel* indication to Layer 2 (see 3.1.1.2.2 of [4]).

## 3.6.4 Traffic Channel Processing

During *Traffic Channel Processing*, the base station uses the Forward and Reverse Traffic Channels to communicate with the mobile station while the mobile station is in the *Mobile Station Control on the Traffic Channel State*.

Traffic Channel processing consists of the following substates:

- *Traffic Channel Initialization Substate* - In this substate, the base station begins transmitting on the Forward Traffic Channel and receiving on the Reverse Traffic Channel.
- *Traffic Channel Substate* - In this substate, the base station exchanges Traffic Channel frames with the mobile station in accordance with the current service configuration. While in this substate, one or more Call Control instances can be activated (see 3.6.8).
- *Release Substate* - In this substate, the base station disconnects the calls and the physical channels.

### 3.6.4.1 Special Functions and Actions

The base station performs the following special functions and actions in one or more of the Traffic Channel processing substates:

#### 3.6.4.1.1 Forward Traffic Channel Power Control

When the base station enables Forward Traffic Channel power control, the mobile station reports frame error rate statistics to the base station using the *Power Measurement Report Message*.

1    The base station may enable Forward Traffic Channel power control using the *System*  
 2    *Parameters Message* sent on the Paging Channel and the *Power Control Parameters Message*  
 3    sent on the Forward Traffic Channel. The base station may enable Forward Traffic Channel  
 4    power control using the *MC-RR Parameters Message* sent on the Primary Broadcast Control  
 5    Channel and the *Power Control Parameters Message* sent on the Forward Traffic Channel.  
 6    The base station may enable periodic reporting which causes the mobile station to report  
 7    frame error rate statistics at specified intervals. The base station may also enable threshold  
 8    reporting which causes the mobile station to report frame error rate statistics when the  
 9    frame error rate reaches a specified threshold.<sup>2</sup>

10   The base station may use the reported frame error rate statistics to adjust the transmit  
 11   power of the Forward Traffic Channel.

#### 12   3.6.4.1.2 Service Configuration and Negotiation

13   During Traffic Channel operation, the mobile station and base station communicate  
 14   through the exchange of Forward and Reverse Traffic Channel Configurations. The mobile  
 15   station and base station use a common set of attributes for building and interpreting Traffic  
 16   Channel frames. This set of attributes, referred to as a service configuration, consists of  
 17   both negotiable and non-negotiable parameters.

18   The set of negotiable service configuration parameters consists of the following:

- 19     1. *Forward and Reverse Multiplex Options*: These control the way in which the  
 20       information bits of the Forward and Reverse Traffic Channel frames, respectively,  
 21       are divided into various types of traffic, such as signaling traffic, primary traffic  
 22       and secondary traffic. A multiplex option together with a radio configuration  
 23       specifies the frame structures and transmission rates (see [3]). The Multiplex  
 24       Options which support Supplemental Code Channel transmission and  
 25       Supplemental Channel transmission on the Forward and Reverse Traffic Channels  
 26       are included in [3]. Invocation of Supplemental Code Channel operation on the  
 27       Forward or Reverse Traffic Channels occurs by transmission of the *Supplemental*  
 28       *Channel Request Message*, the *Supplemental Channel Assignment Message*, and  
 29       the *General Handoff Direction Message*. The Multiplex Options which support  
 30       Supplemental Code Channel transmission and Supplemental Channel  
 31       transmission on the Forward and Reverse Traffic Channels are included in [3].  
 32       The multiplex option used for the Forward Traffic Channel can be the same as  
 33       that used for the Reverse Traffic Channel, or it can be different.
- 34     2. *Forward and Reverse Traffic Channel Configurations*: These include the radio  
 35       configurations and other necessary attributes for the Forward and Reverse Traffic  
 36       Channels. The Traffic Channel Configuration used can be different for the  
 37       Forward and Reverse Traffic Channels or it can be the same.

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<sup>2</sup>In this section the term base station may imply multiple cells or sectors.

- 1       3. Forward and Reverse Traffic Channel Transmission Rates: These are the  
2       transmission rates actually used for the Forward and Reverse Traffic Channels,  
3       respectively. The transmission rates for the Forward Traffic Channel can include  
4       all of the transmission rates supported by the radio configuration associated with  
5       the Forward Traffic Channel multiplex option, or a subset of the supported rates.  
6       Similarly, the transmission rates used for the Reverse Traffic Channel can include  
7       all rates supported by the radio configuration associated with the Reverse Traffic  
8       Channel multiplex option, or a subset of the supported rates. The transmission  
9       rates used for the Forward Traffic Channel can be the same as those used for the  
10      Reverse Traffic Channel, or they can be different.
- 11      4. Service Option Connections: These are the services in use on the Traffic Channel.  
12      There can be multiple service option connections. It is also possible that there is  
13      no service option connection, in which case the base station uses the Forward  
14      Traffic Channel as follows:
- 15       • Sends signaling traffic and null traffic on the Forward Fundamental  
16        Channel.
  - 17       • Sends signaling traffic on the Forward Dedicated Control Channel.
  - 18       • Sends power control bits on the Forward Fundamental Channel if  
19        FPC\_PRI\_CHAN is set to '0'; sends power control bits on the Forward  
20        Dedicated Control Channel if FPC\_PRI\_CHAN is set to '1'.

21      Associated with each service option connection are a service option, a Forward  
22      Traffic Channel traffic type, a Reverse Traffic Channel traffic type, and a service  
23      option connection reference. The associated service option formally defines the  
24      way in which traffic bits are processed by the mobile station and base station. The  
25      associated Forward and Reverse Traffic Channel traffic types specify the types of  
26      traffic used to support the service option. A service option can require the use of a  
27      particular type of traffic, such as primary or secondary, or it can accept more than  
28      one traffic type. A service option can be one-way, in which case it can be  
29      supported on the Forward Traffic Channel only or the Reverse Traffic Channel  
30      only. Alternatively, a service option can be two-way, in which case it can be  
31      supported on the Forward and Reverse Traffic Channels simultaneously.  
32      Connected service options can also invoke operation on Supplemental Code  
33      Channels in either one or both of the Forward and Reverse Traffic Channels by  
34      negotiating a multiplex option that supports operation on Supplemental Code  
35      Channels (see [3] for Multiplex Options applicable to Supplemental Code  
36      Channels), and by using the appropriate Supplemental Code Channel related  
37      messages (i.e., the *Supplemental Channel Request Message*, the *Supplemental*  
38      *Channel Assignment Message*, and the *General Handoff Direction Message*). After  
39      Supplemental Code Channels have been assigned by the base station, the  
40      connected service option can transmit primary and/or secondary traffic on  
41      Supplemental Code Channels. Connected service options can also invoke  
42      operation on Supplemental Channels in either one or both of the Forward and  
43      Reverse Traffic Channels by negotiating a multiplex option that supports operation  
44      on Supplemental Channels (see [3] for Multiplex Options applicable to

Supplemental Channels) and by using the appropriate Supplemental Channel related messages (i.e., the *Supplemental Channel Request Message*, the *Universal Handoff Direction Message*, the *Supplemental Channel Request Mini Message*, the *Extended Supplemental Channel Assignment Message*, the *Forward Supplemental Channel Assignment Mini Message*, and the *Reverse Supplemental Channel Assignment Mini Message*). After Supplemental Channels have been assigned by the base station, the connected service option can transmit primary and/or secondary traffic on Supplemental Channels. The associated service option connection reference provides a means for uniquely identifying the service option connection. The reference serves to resolve ambiguity when there are multiple service option connections in use.

The non-negotiable service configuration parameters are sent from the base station to the mobile stations only, and consist of the following:

1. *Reverse Pilot Gating Rate*: This controls the way in which the reverse pilot is gated on the Reverse Pilot Channel. The base station specifies the reverse pilot gating rate to be used in the *Service Connect Message*, the *General Handoff Direction Message*, and the *Universal Handoff Direction Message*.
2. *Forward and Reverse Power Control Parameters*: These consist of forward power control operation mode, outer loop power control parameters (e.g. target frame error rate, minimum  $E_b/N_t$  setpoint, and maximum  $E_b/N_t$  setpoint) for the Forward Fundamental Channel and Forward Dedicated Control Channel, and Power Control Subchannel indicator which indicates where the mobile station is to perform the primary inner loop estimation and the base station is to multiplex the Power Control Subchannel.
3. *Logical to Physical Mapping*: This is a table of logical to physical mapping entries, consisting of service reference identifier, logical resource, physical resource, forward flag, reverse flag, and priority.
4. *Partition Table*: The base station may include this table to specify the number of bits allocated for each service in the Fundamental Channel or Dedicated Control Channel.
5. *SCH LTU Size Table*: The base station may include this table to specify the number of bits per supplemental channel LTU.
6. Information related to Variable Rate feature (the capability to support rate determination) on Forward and Reverse Supplemental Channels
7. Information related to Flexible Rate feature (the capability to support non-listed rates) on Forward and Reverse Fundamental Channel, Dedicated Control Channel, and Supplemental Channels

The mobile station can request a default service configuration associated with a service option at call origination, and can request new service configurations during Traffic Channel operation. A requested service configuration can differ greatly from its predecessor or it can be very similar. For example, the mobile station can request a service configuration in which all of the service option connections are different from those of the

1 existing configuration; or the mobile station can request a service configuration in which  
2 the existing service option connections are maintained with only minor changes, such as a  
3 different set of transmission rates or a different mapping of service option connections to  
4 Forward and Reverse Traffic Channel traffic types.

5 If the mobile station requests a service configuration that is acceptable to the base station,  
6 they both begin using the new service configuration. If the mobile station requests a  
7 service configuration that is not acceptable to the base station, the base station can reject  
8 the requested service configuration or propose an alternative service configuration. If the  
9 base station proposes an alternative service configuration, the mobile station can accept or  
10 reject the base station's proposed service configuration, or propose yet another service  
11 configuration. This process, called service negotiation, ends when the mobile station and  
12 base station find a mutually acceptable service configuration, or when either the mobile  
13 station or base station rejects a service configuration proposed by the other.

14 It is also possible for the base station to request a default service configuration, associated  
15 with a service option, when paging the mobile station and to request new service  
16 configurations during Traffic Channel operation. The service negotiation proceeds as  
17 described above, but with the roles of the mobile station and base station reversed.

18 For CDMA mode operation in Band Class 0, the mobile station and base station can also  
19 use an alternative method for negotiating a service configuration known as service option  
20 negotiation. Service option negotiation is similar to service negotiation, but offers less  
21 flexibility for specifying the attributes of the service configuration. During service option  
22 negotiation, the base station or mobile station specifies only which service option is to be  
23 used. There is no facility for explicitly specifying the multiplex options, traffic types or  
24 transmission rates to be used on the Forward and Reverse Traffic Channels in conjunction  
25 with the service option. Instead, implicit service configuration attributes are assumed. In  
26 particular, the Forward and Reverse Multiplex Options and transmission rates are assumed  
27 to be the default multiplex options and transmission rates associated with the requested  
28 service option, and the traffic type for both the Forward and Reverse Traffic Channels is  
29 assumed to be primary traffic. Furthermore, a service configuration established using  
30 service option negotiation is restricted to having only a single service option connection.

31 At mobile station origination and termination, the type of negotiation to use, either service  
32 negotiation or service option negotiation, is indicated in the *Channel Assignment Message*.  
33 Service negotiation is always used with the *Extended Channel Assignment Message*. If a  
34 CDMA-to-CDMA hard handoff occurs during the call, the type of negotiation to use  
35 following the handoff is indicated in the *Extended Handoff Direction Message*, *General  
Handoff Direction Message*, or *Universal Handoff Direction Message*.

37 For CDMA mode operation in band classes other than Band Class 0, only service  
38 negotiation is to be used.

39 The following messages are used to support service negotiation:

- 40 1. *Service Request Message*: The mobile station can use this message to propose a  
41 service configuration, or to accept or reject a service configuration proposed in a  
42 *Service Response Message*. The base station can use this message to propose a

- 1       service configuration, or to reject a service configuration proposed in a *Service*  
 2       *Response Message*.
- 3       2. *Service Response Message*: The mobile station can use this message to accept or  
 4       reject a service configuration proposed in a *Service Request Message*, or to propose  
 5       an alternative service configuration. The base station can use this message to  
 6       reject a service configuration proposed in a *Service Request Message*, or to propose  
 7       an alternative service configuration.
- 8       3. *Service Connect Message*: The base station can use this message to accept a service  
 9       configuration proposed in a *Service Request Message* or *Service Response Message*,  
 10      and instruct the mobile station to begin using the service configuration. The base  
 11      station may use this message to instruct the mobile station to use the stored  
 12      service configuration (that is, both the Service Configuration information record  
 13      and the Non-negotiable Service Configuration information record) if based on the  
 14      value of 16-bit CRC computed over the new service configuration (see 2.6.11)  
 15      matches the SYNC\_ID that the mobile station has reported in the *Origination*  
 16      *Message* or *-Page Response Message*.
- 17      4. *Service Connect Completion Message*: The mobile station can use this message to  
 18      acknowledge the transition to a new service configuration.
- 19      5. *Service Option Control Message*: The mobile station and base station can use this  
 20      message to invoke service option specific functions.
- 21      6. *Extended Channel Assignment Message*: The base station can use this message to  
 22      accept or reject the initial service configuration proposed by the mobile station in  
 23      an *Origination Message* or a *Page Response Message*.

24      The following messages are used to support service option negotiation:

- 25       1. *Service Option Request Order*: The mobile station and base station can use this  
 26       message either to request a service option or suggest an alternative service option.
- 27       2. *Service Option Response Order*: The mobile station and base station can use this  
 28       message to accept or reject a service option request.
- 29       3. *Service Option Control Order*: The mobile station and base station can use this  
 30       message to invoke service option specific functions.

31      The following messages are used to support both service negotiation and service option  
 32      negotiation:

- 33       1. *Origination Message*: The mobile station can use this message to propose an initial  
 34       service configuration.
- 35       2. *Channel Assignment Message*: The base station can use this message to accept or  
 36       reject the initial service configuration proposed by the mobile station in an  
 37       *Origination Message* or a *Page Response Message*, and to indicate which type of  
 38       negotiation, either service negotiation or service option negotiation, is to be used  
 39       during the call.

- 1     3. *Extended Handoff Direction Message*: The base station can use this message to  
2       indicate which type of negotiation, either service negotiation or service option  
3       negotiation, is to be used following a CDMA-to-CDMA hard handoff.
- 4     4. *General Handoff Direction Message*: The base station can use this message to  
5       indicate which type of negotiation, either service negotiation or service option  
6       negotiation, is to be used following a CDMA-to-CDMA hard handoff. The base  
7       station can use this message to accept a service configuration proposed in a *Service*  
8       *Request Message* or *Service Response Message*. The base station can also use this  
9       message to instruct the mobile station to begin using the service configuration.
- 10    5. *General Page Message* or *Universal Page Message*: The base station can use a  
11      mobile-station-addressed page in a *General Page Message* or *Universal Page*  
12      *Message* to propose an initial service configuration.
- 13    6. *Page Response Message*: The mobile station can use this message to accept or reject  
14      the initial service configuration proposed by the base station in a mobile-station-  
15      addressed page, or to propose an alternative initial service configuration.
- 16    7. *Status Request Message*: The base station can use this message to request service  
17      capability information from the mobile station.
- 18    8. *Status Response Message*: The mobile station can use this message to return the  
19      service capability information requested by the base station in a *Status Request*  
20      *Message*.
- 21    9. *Extended Status Response Message*: The mobile station can use this message to  
22      return the service capability information requested by the base station in a *Status*  
23      *Request Message*.
- 24    10. *Universal Handoff Direction Message*: The base station can use this message to  
25       indicate which type of negotiation, either service negotiation or service option  
26       negotiation, is to be used following a CDMA-to-CDMA hard handoff. The base  
27       station can use this message to accept a service configuration proposed in a *Service*  
28       *Request Message* or *Service Response Message*. The base station can also use this  
29       message to instruct the mobile station to begin using the service configuration.

#### 30    3.6.4.1.2.1 Use of Variables

##### 31    3.6.4.1.2.1.1 Maintaining the Service Request Sequence Number

32    The base station shall maintain a service request sequence number variable,  
33      SERV\_REQ\_NUM, for use with service negotiation. Upon beginning Traffic Channel  
34      processing, the base station shall set SERV\_REQ\_NUM to 0. Each time the base station  
35      sends a new *Service Request Message*, it shall set the SERV\_REQ\_SEQ field of the message  
36      to the current value of SERV\_REQ\_NUM and shall then set SERV\_REQ\_NUM equal to  
37      (SERV\_REQ\_NUM + 1) modulo 8.

1       3.6.4.1.2.1.2 Maintaining the Service Connect Sequence Number

2       The base station shall maintain a service connect sequence number variable,  
 3       SERV\_CON\_NUM, for use with service negotiation. Upon beginning Traffic Channel  
 4       processing, the base station shall set SERV\_CON\_NUM to 0. Each time the base station  
 5       sends a new *Service Connect Message*, a *General Handoff Direction Message*, or a *Universal*  
 6       *Handoff Direction Message* containing a service configuration record, it shall set the  
 7       SERV\_CON\_SEQ field of the message to the current value of SERV\_CON\_NUM and shall  
 8       then set SERV\_CON\_NUM equal to (SERV\_CON\_NUM + 1) modulo 8.

9       3.6.4.1.2.1.3 Assigning Service Option Connection References

10      When the base station assigns a service option connection reference for use in identifying a  
 11       new service option connection during service negotiation, the base station shall use the  
 12       following criteria:

- 13       1. The base station shall not assign a reference equal to '00000000'; and
- 14       2. The base station shall not assign a reference that is associated with a service option  
 15           connection of the current service configuration; and
- 16       3. If there was a previous service configuration, the base station shall not assign a  
 17           reference that was associated with a service option connection of the previous  
 18           service configuration.

19      3.6.4.1.2.1.4 Maintaining the Service Negotiation Indicator Variable

20      The base station shall maintain a service negotiation indicator variable, SERV\_NEG, to  
 21       indicate which type of negotiation to use, either service negotiation or service option  
 22       negotiation. The base station shall set SERV\_NEG to enabled whenever service negotiation  
 23       is to be used, and shall set SERV\_NEG to disabled whenever service option negotiation is to  
 24       be used. The precise rules for setting SERV\_NEG are specified in 3.6.4.2 and 3.6.6.2.2.2.

25      For CDMA operation in band classes other than Band Class 0, the base station shall set  
 26       SERV\_NEG to enabled.

27      3.6.4.1.2.1.5 Maintaining the Service Option Request Number

28      The base station shall maintain a service option request number variable, SO\_REQ, for use  
 29       with service option negotiation. The base station shall set SO\_REQ to a special value,  
 30       NULL, if the base station does not have an outstanding service option request. If the base  
 31       station has an outstanding service option request, the base station shall set SO\_REQ to the  
 32       number of the service option associated with the outstanding request.

33      3.6.4.1.2.2 Service Subfunctions

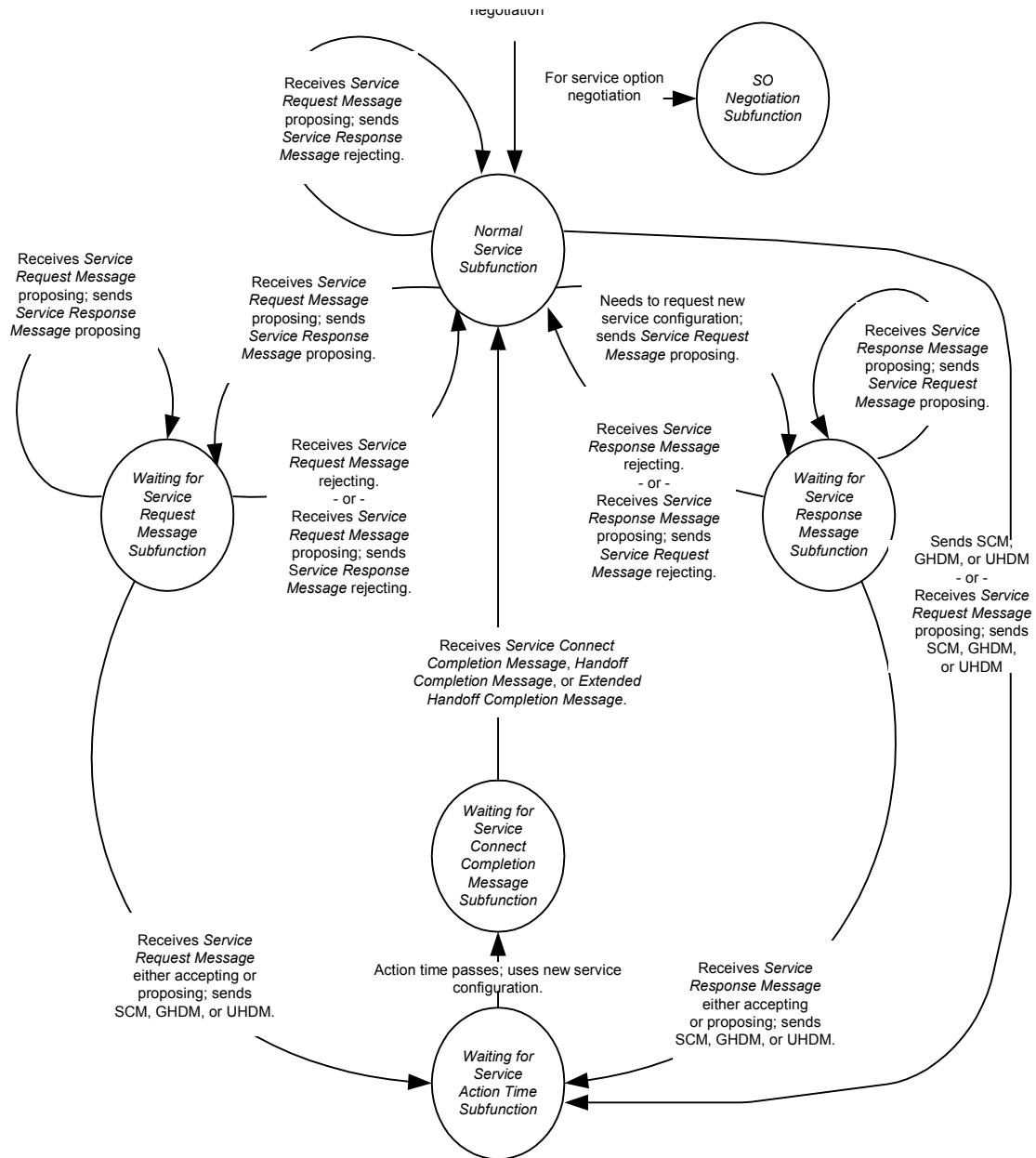
34      As illustrated in Figure 3.6.4.1.2.2-1, the base station supports service configuration and  
 35       negotiation by performing the following set of service subfunctions.

- 36       • *Normal Service Subfunction* - While this subfunction is active, the base station  
 37           processes service configuration requests from the mobile station and sends service  
 38           configuration requests to the mobile station.

- *Waiting for Service Request Message Subfunction* - While this subfunction is active, the base station waits to receive a *Service Request Message*.
- *Waiting for Service Response Message Subfunction* - While this subfunction is active, the base station waits to receive a *Service Response Message*.
- *Waiting for Service Action Time Subfunction* - While this subfunction is active, the base station waits for the action time associated with a new service configuration.
- *Waiting for Service Connect Completion Message Subfunction* - While this subfunction is active, the base station waits to receive a *Service Connect Completion Message*, a *Handoff Completion Message*, or an *Extended Handoff Completion Message*.
- *SO Negotiation Subfunction* - While this subfunction is active and the base station is operating in Band Class 0, the base station supports service option negotiation with the mobile station.

The *SO Negotiation Subfunction* supports service option negotiation. All of the other service subfunctions support service negotiation.

At any given time during Traffic Channel processing, only one of the service subfunctions is active. For example, when the base station first begins Traffic Channel processing, either the *Normal Service Subfunction* or the *SO Negotiation Subfunction* is active. Each of the other service subfunctions may become active in response to various events which occur during the Traffic Channel substates. Typically, the base station processes events pertaining to service configuration and negotiation in accordance with the requirements for the active service subfunction. However, some Traffic Channel substates do not allow for the processing of certain events pertaining to service configuration and negotiation, or specify requirements for processing such events which supersede the requirements of the active service subfunction.

**Figure 3.6.4.1.2.2-1. Base Station Service Subfunctions**

## 1    3.6.4.1.2.2.1 Normal Service Subfunction

2    While this subfunction is active, the base station processes service configuration requests  
3    from the mobile station and sends service configuration requests to the mobile station.

4    While the *Normal Service Subfunction* is active, the base station shall perform the following:

- 5       • The base station shall process Forward and Reverse Traffic Channel frames in  
6       accordance with the current service configuration. The base station shall discard  
7       any Reverse Traffic Channel frame which has a format that is not supported by the  
8       base station. The base station may discard any type of Reverse Traffic Channel  
9       traffic that is not signaling traffic and is not part of the current service  
10      configuration.
- 11      • To initiate service negotiation for a new service configuration, the base station shall  
12      send a *Service Request Message* to propose the new service configuration and shall  
13      activate the *Waiting for Service Response Message Subfunction*.
- 14      • For any service option connection that is part of the current service configuration,  
15      the base station may send a *Service Option Control Message* to invoke a service  
16      option specific function in accordance with the requirements for the associated  
17      service option.
- 18      • The base station may send a *Service Connect Message*, a *General Handoff Direction  
Message*, or a *Universal Handoff Direction Message* containing a service  
19      configuration record. If the base station sends this message, the base station shall  
20      activate the *Waiting for Service Action Time Subfunction*.
- 21      • If SERV\_NEG changes from enabled to disabled (see 3.6.6.2.2.2, 3.6.6.2.2.10, and  
22      3.6.6.2.2.11), the base station shall activate the *SO Negotiation Subfunction*.
- 23      • If the base station receives one of the following service negotiation messages, the  
24      base station shall process the message according to the specified requirements, if  
25      any:
  - 26           1. *Service Connect Completion Message*
  - 27           2. *Service Option Control Message*: If the service option connection specified by the  
28              message is part of the current service configuration, and the service option  
29              specified by the message is the same as the service option associated with the  
30              service option connection, the base station shall process the message in  
31              accordance with the requirements for the service option.
  - 32           3. *Service Request Message*: The base station shall process the message as follows:
    - 33              • If the purpose of the message is to propose a service configuration, the base  
34              station shall process the message as follows:

- If the base station accepts the proposed service configuration, the base station shall send a *Service Connect Message*, a *General Handoff Direction Message*, or a *Universal Handoff Direction Message* containing a service configuration record and shall activate the *Waiting for Service Action Time Subfunction*.
- If the base station does not accept the proposed service configuration and does not have an alternative service configuration to propose, the base station shall send a *Service Response Message* to reject the proposed service configuration.
- If the base station does not accept the proposed service configuration and has an alternative service configuration to propose, the base station shall perform one of the following actions:
  - o Send a *Service Response Message* to propose the alternative service configuration. ~~The base station shall and shall~~ activate the *Waiting for Service Request Message Subfunction*, or-
  - o Send a *Service Connect Message*, a *General Handoff Direction Message*, or a *Universal Handoff Direction Message* containing a service configuration record and shall activate the *Waiting for Service Action Time Subfunction*

#### 4. Service Response Message

- If the base station receives one of the following service option negotiation messages, the base station shall process the message according to the specified requirements, if any:
  1. *Service Option Request Order*
  2. *Service Option Response Order*
  3. *Service Option Control Order*

##### 3.6.4.1.2.2.2 Waiting for Service Request Message Subfunction

While this subfunction is active, the base station waits to receive a *Service Request Message*.

While the *Waiting for Service Request Message Subfunction* is active, the base station shall perform the following:

- If the base station does not receive a *Service Request Message*, the base station shall activate the *Normal Service Subfunction*.
- The base station shall process Forward and Reverse Traffic Channel frames in accordance with the current service configuration. The base station shall discard any Reverse Traffic Channel frame which has a format that is not supported by the base station. The base station may discard any type of Reverse Traffic Channel traffic that is not signaling traffic and is not part of the current service configuration.

- For any service option connection that is part of the current service configuration, the base station may send a *Service Option Control Message* to invoke a service option specific function in accordance with the requirements for the associated service option.
- If SERV\_NEG changes from enabled to disabled (see 3.6.6.2.2.2, 3.6.6.2.2.10, and 3.6.6.2.2.11), the base station shall activate the *SO Negotiation Subfunction*.
- If the base station receives one of the following service negotiation messages, the base station shall process the message according to the specified requirements, if any:
  1. *Service Connect Completion Message*
  2. *Service Option Control Message*: If the service option connection specified by the message is part of the current service configuration, and the service option specified by the message is the same as the service option associated with the service option connection, the base station shall process the message in accordance with the requirements for the service option.
  3. *Service Request Message*: The base station shall process the message as follows:
    - If the purpose of the message is to accept a proposed service configuration, the base station shall perform one of the following actions:
      - The base station shall send a *Service Connect Message*, *General Handoff Direction Message*, or *Universal Handoff Direction Message* and shall activate the *Waiting for Service Action Time Subfunction*.
      - The base station shall send a *Service Request Message* to propose an alternative service configuration and shall activate the *Waiting for Service Response Message Subfunction*.
    - If the purpose of the message is to reject a proposed service configuration, the base station shall activate the *Normal Service Subfunction*.
    - If the purpose of the message is to propose a service configuration, the base station shall process the message as follows:
      - If the base station accepts the proposed service configuration, the base station shall send a *Service Connect Message*, a *General Handoff Direction Message*, or a *Universal Handoff Direction Message* containing a service configuration record and shall activate the *Waiting for Service Action Time Subfunction*.
      - If the base station does not accept the proposed service configuration and does not have an alternative service configuration to propose, the base station shall send a *Service Response Message* to reject the proposed service configuration. The base station shall activate the *Normal Service Subfunction*.

- If the base station does not accept the proposed service configuration and has an alternative service configuration to propose, the base station shall perform one of the following actions:
  - o Ssend a *Service Response Message* to propose the alternative service configuration, or.
  - o Send a Service Connect Message, a General Handoff Direction Message, or a Universal Handoff Direction Message containing a service configuration record and shall activate the Waiting for Service Action Time Subfunction

10           4. *Service Response Message*

- 11       • If the base station receives one of the following service option negotiation messages, the base station shall process the message according to the specified requirements, if any:
  - 14       1. *Service Option Request Order*
  - 15       2. *Service Option Response Order*
  - 16       3. *Service Option Control Order*

17       3.6.4.1.2.2.3 Waiting for Service Response Message Subfunction

18       While this subfunction is active, the base station waits to receive a *Service Response Message*.

20       While the *Waiting for Service Response Message Subfunction* is active, the base station shall perform the following:

- 22       • If the base station does not receive a *Service Response Message*, the base station shall activate the *Normal Service Subfunction*.
- 24       • The base station shall process Forward and Reverse Traffic Channel frames in accordance with the current service configuration. The base station shall discard any Reverse Traffic Channel frame which has a format that is not supported by the base station. The base station may discard any type of Reverse Traffic Channel traffic that is not signaling traffic and is not part of the current service configuration.
- 30       • For any service option connection that is part of the current service configuration, the base station may send a *Service Option Control Message* to invoke a service option specific function in accordance with the requirements for the associated service option.
- 34       • If SERV\_NEG changes from enabled to disabled (see 3.6.6.2.2.2, 3.6.6.2.2.10, and 3.6.6.2.2.11), the base station shall activate the *SO Negotiation Subfunction*.
- 36       • If the base station receives one of the following service negotiation messages, the base station shall process the message according to the specified requirements, if any:

- 1        1. *Service Connect Completion Message*
- 2        2. *Service Option Control Message*: If the service option connection specified by the message is part of the current service configuration, and the service option specified by the message is the same as the service option associated with the service option connection, the base station shall process the message in accordance with the requirements for the service option.
- 3        3. *Service Request Message*: The base station should not process the [layer 3](#)Layer 3 fields of the message.
- 4        4. *Service Response Message*: The base station shall process the message as follows:
  - 11        • If the service request sequence number (SERV\_REQ\_SEQ) from the message does not match the sequence number of the *Service Request Message* for which the base station is expecting a response, the base station shall not process the [layer 3](#)Layer 3 fields of the message.
  - 12        • If the purpose of the message is to accept a proposed service configuration, the base station shall perform one of the following actions:
    - 17        – The base station shall send a *Service Connect Message*, a *General Handoff Direction Message*, or a *Universal Handoff Direction Message* containing a service configuration record and shall activate the *Waiting for Service Action Time Subfunction*. Or
    - 18        – The base station shall send a *Service Request Message* to propose an alternative service configuration.
  - 19        • If the purpose of the message is to reject a proposed service configuration, the base station shall activate the *Normal Service Subfunction*.
  - 20        • If the purpose of the message is to propose a service configuration, the base station shall process the message as follows:
    - 25        – If the base station accepts the proposed service configuration, the base station shall send a *Service Connect Message*, a *General Handoff Direction Message*, or a *Universal Handoff Direction Message* containing a service configuration record and shall activate the *Waiting for Service Action Time Subfunction*.
    - 26        – If the base station does not accept the proposed service configuration and does not have an alternative service configuration to propose, the base station shall send a *Service Request Message* to reject the proposed service configuration. The base station shall activate the *Normal Service Subfunction*.
    - 27        – If the base station does not accept the proposed service configuration and has an alternative service configuration to propose, the base station shall [perform one of the following actions](#):

- 1           o Ssend a *Service Request Message* to propose the alternative service  
 2           configuration, or-  
 3           o Send a *Service Connect Message*, a *General Handoff Direction*  
 4           *Message*, or a *Universal Handoff Direction Message* containing a  
 5           service configuration record and shall activate the *Waiting for Service*  
 6           *Action Time Subfunction*

- 7       • If the base station receives one of the following service option negotiation messages,  
 8           the base station shall process the message according to the specified requirements,  
 9           if any:
  - 10          1. *Service Option Request Order*
  - 11          2. *Service Option Response Order*
  - 12          3. *Service Option Control Order*

#### 13       3.6.4.1.2.2.4 Waiting for Service Action Time Subfunction

14       While this subfunction is active, the base station waits for the action time associated with a  
 15       new service configuration.

16       While the *Waiting for Service Action Time Subfunction* is active, the base station shall  
 17       perform the following:

- 18       • Prior to the action time associated with the *Service Connect Message*, a *General*  
 19           *Handoff Direction Message*, or *Universal Handoff Direction Message* containing a  
 20           service configuration record, the base station shall process Forward and Reverse  
 21           Traffic Channel frames in accordance with the current service configuration. The  
 22           base station shall discard any Reverse Traffic Channel frame which has a format  
 23           that is not supported by the base station. The base station may discard any type of  
 24           Reverse Traffic Channel traffic that is not signaling traffic and is not part of the  
 25           current service configuration.
- 26       • At the action time associated with the *Service Connect Message*, *General Handoff*  
 27           *Direction Message*, or *Universal Handoff Direction Message* containing a service  
 28           configuration record, the base station shall begin to use the service configuration  
 29           specified by the *Service Connect Message*, the *General Handoff Direction Message*, or  
 30           the *Universal Handoff Direction Message* containing a service configuration record,  
 31           as the current service configuration and shall begin to process Forward and Reverse  
 32           Traffic Channel frames accordingly. The base station shall activate the *Waiting for*  
 33           *Service Connect Completion Message Subfunction*.
- 34       • If SERV\_NEG changes from enabled to disabled (see 3.6.6.2.2, 3.6.6.2.10, and  
 35           3.6.6.2.2.11), the base station shall activate the *SO Negotiation Subfunction*.
- 36       • If the base station receives one of the following service negotiation messages, the  
 37           base station shall process the message according to the specified requirements, if  
 38           any:
  - 39           1. *Service Connect Completion Message*

1           2. *Service Option Control Message*: If the service option connection specified by the  
 2           message is part of the current or pending service configuration, and the service  
 3           option specified by the message is the same as the service option associated with  
 4           the service option connection, the base station shall process the message in  
 5           accordance with the requirements for the service option.

6           3. *Service Request Message*

7           4. *Service Response Message*

- 8           • If the base station receives one of the following service option negotiation messages,  
 9           the base station shall process the message according to the specified requirements,  
 10          if any:

11          1. *Service Option Request Order*

12          2. *Service Option Response Order*

13          3. *Service Option Control Order*

#### 14        3.6.4.1.2.2.5 Waiting for Service Connect Completion Message Subfunction

15        While this subfunction is active, the base station waits to receive a *Service Connect*  
 16       *Completion Message*, a *Handoff Completion Message*, or an *Extended Handoff Completion*  
 17       *Message*.

18        While the *Waiting for Service Connect Completion Message Subfunction* is active, the base  
 19       station shall perform the following:

- 20          • If the base station has sent a *Service Connect Message* and does not receive a *Service*  
 21       *Connect Completion Message*, or if the base station has sent a *General Handoff*  
 22       *Direction Message* or a *Universal Handoff Direction Message* containing a Service  
 23       Configuration record and does not receive a *Handoff Completion Message*, or an  
 24       *Extended Handoff Completion Message*, the base station shall activate the *Normal*  
 25       *Service Subfunction*.
- 26          • The base station shall process Forward and Reverse Traffic Channel frames in  
 27       accordance with the current service configuration. The base station shall discard  
 28       any Reverse Traffic Channel frame which has a format that is not supported by the  
 29       base station. The base station may discard any type of Reverse Traffic Channel  
 30       traffic that is not signaling traffic and is not part of the current service  
 31       configuration.
- 32          • The base station shall not initiate service negotiation for a new service configuration.
- 33          • If SERV\_NEG changes from enabled to disabled (see 3.6.6.2.2, 3.6.6.2.2.10, and  
 34       3.6.6.2.2.11), the base station shall activate the *SO Negotiation Subfunction*.
- 35          • If the base station receives one of the following service negotiation messages, the  
 36       base station shall process the message according to the specified requirements, if  
 37       any:

1. *Service Connect Completion Message, Handoff Completion Message, or Extended*  
2. *Handoff Completion Message:* The base station shall activate the *Normal Service*  
3. *Subfunction.*
  4. *Service Option Control Message:* If the service option connection specified by the  
5. message is part of the current service configuration, and the service option  
6. specified by the message is the same as the service option associated with the  
7. service option connection, the base station shall process the message in  
8. accordance with the requirements for the service option.
  9. *Service Request Message*
  10. *Service Response Message*
  11. • If the base station receives one of the following service option negotiation messages,  
12. the base station shall process the message according to the specified requirements,  
13. if any:
    14. 1. *Service Option Request Order*
    15. 2. *Service Option Response Order*
    16. 3. *Service Option Control Order*
17. 3.6.4.1.2.2.6 SO Negotiation Subfunction
18. While this subfunction is active, the base station supports service option negotiation with  
19. the mobile station.
20. Upon activating the *SO Negotiation Subfunction*, the base station shall set SO\_REQ to NULL.  
21. The base station shall delete from the current service configuration any service option  
22. connection which does not use primary traffic on both the Forward and Reverse Traffic  
23. Channels.
24. While the *SO Negotiation Subfunction* is active, the base station shall perform the following:
- 25. • If the current service configuration includes a service option connection, the base  
26. station shall process the received primary traffic bits in accordance with the  
27. requirements for the service option associated with the service option connection;  
28. otherwise, the base station shall discard the received primary traffic bits.
  - 29. • If the current service configuration includes a service option connection, the base  
30. station shall transmit primary traffic bits in accordance with the requirements for  
31. the service option associated with the service option connection; otherwise, the base  
32. station shall transmit null traffic and power control bits on the Forward  
33. Fundamental Channel, if the Fundamental channel is present to transmit power  
34. control bits on the Forward Dedicated Control Channel, if only the Dedicated  
35. Control Channel is present.
  - 36. • If the current service configuration includes a service option connection, the base  
37. station may send a *Service Option Control Order* to invoke a service option specific  
38. function in accordance with the requirements for the service option associated with  
39. the service option connection.

- To initiate service option negotiation, the base station shall set SO\_REQ to the number of the requested service option and shall send a *Service Option Request Order* containing the requested service option number.
- If SERV\_NEG changes from disabled to enabled (see 3.6.6.2.2.2, 3.6.6.2.2.10, and 3.6.6.2.2.11), the base station shall activate the *Normal Service Subfunction*.
- The base station shall process a service option request received in an *Origination Message*, a *Page Response Message*, or a *Service Option Request Order* as follows:
  - If the base station accepts the requested service option, the base station shall set SO\_REQ to NULL and shall send a *Service Option Response Order* accepting the requested service option within T<sub>4b</sub> seconds. The base station shall begin using the service configuration implied by the requested service option in accordance with the requirements for the requested service option. The implied service configuration shall include the default Forward and Reverse Multiplex Options and transmission radio configurations associated with the requested service option. This implied service configuration shall include one service option connection for which the service option connection reference is 1, for which the service option is the requested service option, and for which the Forward and Reverse Traffic Channel types are both primary traffic.
  - If the base station does not accept the requested service option and has an alternative service option to request, the base station shall set SO\_REQ to the alternative service option number and shall send a *Service Option Request Order* requesting the alternative service option within T<sub>4b</sub> seconds.
  - If the base station does not accept the requested service option and does not have an alternative service option to request, the base station shall set SO\_REQ to NULL and shall send a *Service Option Response Order* to reject the request within T<sub>4b</sub> seconds. The base station shall continue to use the current service configuration.
- If the base station receives a *Service Option Response Order*, it shall process the order as follows:
  - If the service option number specified in the order is equal to SO\_REQ, the base station shall set SO\_REQ to NULL and shall begin using the service configuration implied by the specified service option in accordance with the requirements for the service option. The implied service configuration shall include the default Forward and Reverse Multiplex Options and radio configurations associated with the requested service option. This implied service configuration shall include one service option connection for which the service option connection reference is 1, for which the service option is the requested service option, and for which the Forward and Reverse Traffic Channel types are both primary traffic.
  - If the order indicates a service option rejection, the base station shall set SO\_REQ to NULL. The base station shall continue to use the current service configuration.

- 1     – If the order does not indicate a service option rejection and the service option  
 2       specified in the order is not equal to SO\_REQ, the base station shall set SO\_REQ  
 3       to NULL, should send a *Release Order* (ORDQ = '00000010'), and should enter  
 4       the *Release Substate*.
- 5     • If the base station receives a *Service Option Control Order*, the base station shall  
 6       process the order as follows:
  - 7         – If the current service configuration includes a service option connection, the  
 8           base station shall process the received *Service Option Control Order* in  
 9           accordance with the requirements for the service option associated with the  
 10          service option connection.
  - 11         • If the base station receives one of the following service negotiation messages, the  
 12           base station shall process the message according to the specified requirements, if  
 13           any:
    - 14             1. *Service Connect Completion Message*
    - 15             2. *Service Option Control Message*
    - 16             3. *Service Request Message*
    - 17             4. *Service Response Message*

#### 18     3.6.4.1.3 Ordering of Messages

19     The Layer 2 protocol does not guarantee delivery of messages in any order. If the base  
 20    station requires that the mobile station receive a set of messages in a certain order, the  
 21    base station shall send each message in assured mode requiring confirmation of delivery  
 22    and shall wait for the confirmation of delivery of each message before transmitting the next  
 23    message in the set.

#### 24     3.6.4.1.4 Message Action Times

25     A Forward Traffic Channel message without a USE\_TIME field or with a USE\_TIME field set  
 26    to '0' has an implicit action time. A message that has its USE\_TIME field set to '1' has an  
 27    explicit action time that is specified in the ACTION\_TIME field of the message.

28     A message with an explicit action time is called a pending message.

29     Unless otherwise specified, a message having an implicit action time shall take effect no  
 30    later than the first 80 ms boundary (relative to System Time) occurring at least 80 ms after  
 31    the end of the frame containing the last bit of the message. A message with an explicit  
 32    action time, except for a *Power Up Function Message*, shall take effect when System Time (in  
 33    80 ms units) modulo 64 becomes equal to the message's ACTION\_TIME field. A *Power Up*  
 34    *Function Message* shall take effect ACTION\_TIME\_FRAME frames after the time when  
 35    System Time (in 80 ms units) modulo 64 becomes equal to the message's ACTION\_TIME  
 36    field. The difference in time between ACTION\_TIME and the end of the frame containing the  
 37    last bit of the message shall be at least 80 ms.

38     The base station shall support two pending messages at any given time, not including  
 39    pending *Service Option Control Orders*, *Service Option Control Messages*, or *Power Up*

1     *Function Messages.* The number of pending *Service Option Control Orders* or *Service Option*  
 2     *Control Messages* that the base station is required to support is specific to the service  
 3     option (see the relevant service option descriptions). In addition, the base station shall  
 4     support one pending *Power Up Function Message*.

5     3.6.4.1.5 Long Code Transition Request Processing

6     If a request for voice privacy is specified in the *Origination Message* or *Page Response*  
 7     *Message*, the base station may send a *Long Code Transition Request Order* (ORDQ =  
 8     '00000001') requesting a transition to the private long code.

9     The base station shall process the *Long Code Transition Request Order* as follows:

- 10    • If the *Long Code Transition Request Order* requests a transition to the private long  
 11    code and the base station accepts the request, the base station shall send a *Long*  
 12    *Code Transition Request Order* (ORDQ = '00000001'). If the base station does not  
 13    accept the private long code transition request, the base station shall send a *Long*  
 14    *Code Transition Request Order* (ORDQ = '00000000').
- 15    • If the *Long Code Transition Request Order* requests a transition to the public long  
 16    code and the base station accepts the request, the base station shall send a *Long*  
 17    *Code Transition Request Order* (ORDQ = '00000000'). If the base station does not  
 18    accept the public long code transition request, the base station shall send a *Long*  
 19    *Code Transition Request Order* (ORDQ = '00000001').

20    The base station shall process the *Long Code Transition Response Order* as follows:

- 21    • If the *Long Code Transition Response Order* indicates that the mobile station accepts  
 22    the long code transition requested in the *Long Code Transition Request Order* sent by  
 23    the base station, the base station shall use the requested long code mask on both  
 24    the Forward Traffic Channel and the Reverse Traffic Channel. The base station  
 25    shall specify an explicit action time in the *Long Code Transition Request Order*. The  
 26    base station shall begin using the requested long code mask using the explicit action  
 27    time (see 3.6.4.1.4).

28    3.6.4.1.6 Processing Resource Request Messages

29    The base station shall process *Resource Request Message* and *Resource Request Mini*  
 30    *Message*, as follows:

- 31    • The base station may send one of the messages that assign appropriate resources  
 32    (e.g. *Extended Supplemental Channel Assignment Message*, *Resource Allocation*  
 33    *Message*, *Resource Allocation Mini Message*, *Universal Handoff Direction Message*,  
 34    *Retry Order*, etc) to the mobile station. If the base station sends one of these  
 35    messages, the base station shall set PILOT\_GATING\_USE\_RATE to '0' and start  
 36    transmitting the Forward Power Control Subchannel with the maximum rate at the  
 37    action time of the message.
- 38    • The base station may send a *Retry Order* to the mobile station.

1        3.6.4.1.7 Response to Enhanced Origination Message

2        If the base station receives an *Enhanced Origination Message*, the base station should  
3        perform the following:

- 4           • If the base station does not accept this call request from the mobile station, the base  
5        station should send one of the following messages:

- 6             + A *Call Assignment Message* to the mobile station, with the RESPONSE\_IND field  
7        set to ‘1’, the ACCEPT\_IND field set to ‘0’, and the TAG field set to the value of  
8        the TAG field of the *Enhanced Origination Message*.
- 9             + A *Retry Order* if the *Enhanced Origination Message* is for a packet data service  
10      option.

- 11           • If the base station accepts this call request from the mobile station, the base station  
12      should send a *Call Assignment Message*, *Service Connect Message*, *General Handoff*  
13      *Direction Message* (with the *Service Configuration information record included*), or  
14      *Universal Handoff Direction Message* (with the Service Configuration information  
15      record included) to assign the call:

- 16             – If the GLOBAL EMERGENCY CALL indicator is set to ‘1’ and the service  
17        associated with this origination is a voice service, the base station shall  
18        recognize this as an emergency call and should process the message using an  
19        implementation-dependent procedure which may include ignoring the dialed  
20        digits. If the base station receives an *Origination Message* and the  
21        GLOBAL EMERGENCY CALL indicator is set to ‘1’ and the service associated  
22        with this origination is not a voice service, the base station may recognize this as  
23        an emergency call and should process the message using an implementation-  
24        dependent procedure which may include ignoring the dialed digits.

- 25             – If the base station sends a *Call Assignment Message* to assign the call, the base  
26        station shall perform the following:

- 27             + The base station shall set the RESPONSE\_IND field to ‘1’, the ACCEPT\_IND  
28        field to ‘1’, and the TAG field to the value of the TAG field of the *Enhanced*  
29        *Origination Message*. The base station shall set the CON\_REF\_INCL field of  
30        the message to ‘1’ and the CON\_REF field of the message to the value of the  
31        connection reference of the service option connection corresponding to this  
32        call.

- 33             + A service option connection corresponding to this call (if not already  
34        established) shall be established by performing service negotiation; the base  
35        station should initiate service negotiation to establish the service option  
36        connection, if permitted by the current service negotiation subfunction.

- 37             + At the action time corresponding to this message, the *layer 3Layer 3* shall  
38        instantiate a Call Control instance (as specified in 3.6.8). The *layer 3Layer 3*  
39        shall identify this Call Control instance by the value of the CON\_REF field

1 included in the *Call Assignment Message*.

- 2 – If the base station sends a *Service Connect Message*, *General Handoff Direction*  
 3 *Message (with the Service Configuration information record included)*, or a  
 4 *Universal Handoff Direction Message* (with the Service Configuration information  
 5 record included), to assign the call, the base station shall perform the following:
- 6 + The base station shall set the call control parameters corresponding to this  
 7 call included in the message as follows: The base station shall set the  
 8 RESPONSE\_IND field to ‘1’, and the TAG field to the value of the TAG field of  
 9 the *Enhanced Origination Message*.
- 10 + At the action time corresponding to this message, the *layer 3Layer 3* shall  
 11 instantiate a Call Control instance (as specified in 3.6.8). The *layer 3Layer 3*  
 12 shall identify this Call Control instance by the value of the CON\_REF  
 13 assigned to the service option connection corresponding to this call.

14 3.6.4.1.8 Processing Resource Release Request Message and Resource Release Request Mini  
 15 Message

16 The base station may perform the following in response to receiving a *Resource Release*  
 17 *Request Message* or a *Resource Release Request Mini Message* from the mobile station:

- 18 • If the mobile station requests to release a service option connection, the base station  
 19 may send a *Service Connect Message*, *General Handoff Direction Message*, or a  
 20 *Universal Handoff Direction Message* to release the service option connection.
- 21 • If the mobile station requests to commence reverse pilot gating operation, the base  
 22 station may send a *Extended Release Message*, *Extended Release Mini Message*, or a  
 23 *Universal Handoff Direction Message* to instruct the mobile station to commence the  
 24 reverse pilot gating operation.

25 3.6.4.1.9 Processing Base Station Status Request Message

26 If the requested RECORD TYPE equals ‘00000000’ (Pilot Information), the base station  
 27 should send a Base Station Status Response Message with a RECORD TYPE of ‘00000000’  
 28 (Pilot Information) to the mobile station:

- 29 • For each pilot being requested by the mobile station, the base station shall include  
 30 the corresponding Base Station Identification number.
- 31 • If SID and NID information is being requested by the mobile station, the base station  
 32 shall include the SID and NID information corresponding to these pilots.

1       3.6.4.2 Traffic Channel Initialization Substate

2       In this substate, the base station begins transmitting on the Forward Traffic Channel and  
 3       acquires the Reverse Traffic Channel.

4       Upon entering the *Traffic Channel Initialization Substate*, the base station shall perform the  
 5       following:

- 6           • Layer 3 shall send an L2-Supervision.Request primitive to Layer 2 to reset the  
     7           message acknowledgment procedures as specified in 3.2.1.1 and 3.2.2.1 of [4].
- 8           • The base station shall set its Forward and Reverse Traffic Channel long code masks  
     9           to the public long code mask (see [2]).
- 10          • The base station shall set its Forward and Reverse Traffic Channel frame offsets (see  
     11           [2]) to the frame offset assigned to the mobile station.
- 12          • If the base station set the ASSIGN\_MODE field of the *Channel Assignment Message*  
     13           to '000', the base station shall set SERV\_NEG to disabled. If the base station set the  
     14           ASSIGN\_MODE field of the *Channel Assignment Message* to '100', the base station  
     15           shall set SERV\_NEG to enabled. For operation in band classes other than Band  
     16           Class 0, SERV\_NEG is always equal to enabled.
- 17          • If the base station uses the *Extended Channel Assignment Message*, the base station  
     18           shall set the SERV\_NEG to enabled.
- 19          • The base station shall determine the initial service configuration as follows:
  - 20           – If SERV\_NEG is equal to disabled, the initial service configuration shall include  
     21           Multiplex Option 1 and Radio Configuration 1 for both the Forward and Reverse  
     22           Traffic Channels, and shall include no service option connections.
  - 23           – If SERV\_NEG is equal to enabled and the base station set the GRANTED\_MODE  
     24           field of the *Channel Assignment Message* or the *Extended Channel Assignment*  
     25           Message to '00', the initial service configuration shall include the multiplex  
     26           option and radio configuration for the Forward and Reverse Traffic Channels as  
     27           specified by the DEFAULT\_CONFIG field, and shall include no service option  
     28           connections.
  - 29           – If SERV\_NEG is equal to enabled and the base station set the GRANTED\_MODE  
     30           field of the *Channel Assignment Message* or the *Extended Channel Assignment*  
     31           Message to '01' or '10', the initial service configuration shall include the default  
     32           Forward and Reverse Traffic Channel multiplex options ~~that are derived from the~~  
     33           ~~radio configurations corresponding to Table 3.7.2.3.2.21-7 and transmission~~  
     34           ~~rates corresponding to the service option requested by the mobile station in the~~  
     35           ~~Origination Message, in the case of a mobile station originated call, or the~~  
     36           ~~Page Response Message, in the case of a mobile station terminated call,~~ and shall  
     37           include no service option connections.

1       – If SERV\_NEG is equal to enabled and the base station set the GRANTED\_MODE  
 2           field of the *Channel Assignment Message* to '01' or '10', the initial service  
 3           configuration shall include the default Forward and Reverse Traffic Channel  
 4           multiplex options and transmission rates corresponding to the service option  
 5           requested by the mobile station in the *Origination Message*, in the case of a  
 6           mobile station originated call, or the *Page Response Message*, in the case of a  
 7           mobile station terminated call, and shall include no service option connections.

- 8       • If SERV\_NEG is equal to disabled, the base station shall activate the *SO Negotiation*  
 9           *Subfunction* (see 3.6.4.1.2.2.6); otherwise, the base station shall activate the *Normal*  
 10          *Service Subfunction* (see 3.6.4.1.2.2.1).
- 11       • The base station shall set PILOT\_GATING\_USE\_RATE to '0'.

12       While in the *Traffic Channel Initialization Substate*, the base station shall perform the  
 13          following:

- 14       • If the Forward Fundamental Channel is assigned, the base station shall transmit  
 15           null Traffic Channel data on the Forward Fundamental Channel, except when  
 16           transmitting signaling traffic.
- 17       • If FPC\_PRI\_CHAN is set to '0', the base station shall transmit power control bits on  
 18           the Forward Fundamental Channel. If FPC\_PRI\_CHAN is set to '1', the base station  
 19           shall transmit power control bits on the Forward Dedicated Control Channel.
- 20       • If the base station acquires the Reverse Traffic Channel, Layer 3 shall send a *reverse*  
 21           *dedicated channel acquired* indication to Layer 2 (see 2.2.2.1.2 of [4]). The *layer*  
 22           *3Layer 3* shall instantiate a Call Control instance (as specified in 3.6.8). The *layer*  
 23           *3Layer 3* shall assign the default identifier of NULL to this Call Control instance. The  
 24           *layer 3Layer 3* shall enter the *Traffic Channel Substate*.
- 25       • If the base station fails to acquire the Reverse Traffic Channel, the base station  
 26           should perform one of the following:
  - 27           - retransmit the *Channel Assignment Message* or the *Extended Channel*  
 28              *Assignment Message* on the Paging Channel and remain in the *Traffic Channel*  
 29              *Initialization Substate*
  - 30           - retransmit the *Extended Channel Assignment Message* on the Forward Common  
 31              Control Channel and remain in the *Traffic Channel Initialization Substate*, or
  - 32           - disable transmission on the Forward Traffic Channel and discontinue the *Traffic*  
 33              *Channel Processing* for the mobile station.

### 34       3.6.4.3 Traffic Channel Substate

35       In this substate, the base station may exchange Traffic Channel frames with the mobile  
 36          station in accordance with the current service configuration.

37       Upon entering the *Traffic Channel Substate*, the base station shall perform the following:

- 38       • If the call is a mobile station terminated call and the base station set  
 39           BYPASS\_ALERT\_ANSWER to '0', the base station shall perform the following:

- If SERV\_NEG is equal to disabled, the base station shall process the service option request specified in the *Page Response Message* in accordance with the requirements for the active service subfunction (see 3.6.4.1.2.2).
- If SERV\_NEG is equal to enabled and the base station sets the GRANTED\_MODE field of the *Channel Assignment Message* or the *Extended Channel Assignment Message* to ‘00’ or ‘01’, the base station should initiate service negotiation to request a service configuration in accordance with the requirements for the active service subfunction (see 3.6.4.1.2.2).
- If SERV\_NEG is equal to enabled and the base station set the GRANTED\_MODE field of the *Channel Assignment Message* or the *Extended Channel Assignment Message* to ‘10’, the base station should send a *Service Connect Message* in accordance with the requirements for the active service subfunction (see 3.6.4.1.2.2).
- Otherwise, the base station shall perform the following:
  - If SERV\_NEG equals enabled, the call is mobile-station-originated and the base station sets the GRANTED\_MODE field of the *Channel Assignment Message* or the *Extended Channel Assignment Message* to ‘10’, the base station should send a *Service Connect Message* in accordance with the requirements for the active service subfunction (see 3.6.4.1.2.2).
  - If SERV\_NEG equals disabled and the call is mobile-station-originated, the base station shall process the service option request specified in the *Origination Message* in accordance with the requirements for the active service subfunction (see 3.6.4.1.2.2).

While in the *Traffic Channel Substate*, the base station shall perform the following:

- The base station shall transmit the power control subchannel as specified in [2].
- The base station shall process Forward and Reverse Traffic Channel frames in accordance with the requirements for the active service subfunction (see 3.6.4.1.2.2).
- When PILOT\_GATING\_USE\_RATE is equal to ‘0’ and the base station is to establish a Fundamental Channel or a Dedicated Control Channel, the base station shall send a *Universal Handoff Direction Message* to the mobile station.
- When PILOT\_GATING\_USE\_RATE is equal to ‘1’ and the base station has data to send, the base station may send a *Resource Allocation Message*, *Resource Allocation Mini Message*, *Extended Supplemental Channel Assignment Message*, *Forward Supplemental Channel Assignment Mini Message*, *Reverse Supplemental Channel Assignment Mini Message*, or *Universal Handoff Direction Message* to start transmitting the Forward Power Control Subchannel with the maximum rate at the action time of the message and start exchange of user information.

- If both the Fundamental Channel and the Dedicated Control Channel are currently established, and the base station is to release one of these two channels, the base station shall send a *Universal Handoff Direction Message, Extended Release Message*, or an *Extended Release Mini Message* to the mobile station.
- When PILOT\_GATING\_USE\_RATE is equal to '0' and the base station does not have any data to send and the base station has determined that the mobile station does not have any data to send (see the RLP out-of-data indication in TIA/EIA/IS-707-A), then the base station may send an *Extended Release Message, Extended Release Mini Message or Universal Handoff Direction Message* to start transmitting the Forward Power Control Subchannel with the specified rate at the action time of the message and stop the exchange of user information.
- If the base station declares a loss of Reverse Traffic Channel continuity (see 3.4), the base station should send a *Release Order* to the mobile station. If the base station sends a *Release Order*, the [layer 3](#)[Layer 3](#) shall send a "release indication" to all Call Control instances, and shall enter the *Release Substate*.
- The base station may perform Forward Traffic Channel power control as specified in 3.6.4.1.1.
- The base station may request a new service configuration by initiating service negotiation or service option negotiation in accordance with the requirements for the active service subfunction (see 3.6.4.1.2.2).
- The base station may send a *Service Option Control Message* or *Service Option Control Order* to invoke a service option specific function in accordance with the requirements for the active service subfunction (see 3.6.4.1.2.2).
- The base station may request a long code transition, as specified in 3.6.4.1.5, either autonomously or in response to a request for voice privacy specified in the *Origination Message* or *Page Response Message*.
- The base station may perform authentication procedures as specified in 3.3.1.
- The base station may perform TMSI assignment procedures (see 2.3.15).
- For the first call, if the call is mobile-station-originated and the PACA\_REORIG field of the *Origination Message* is equal to '1', the [layer 3](#)[Layer 3](#) shall send a "paca reorig indication" to the Call Control instance.
- The base station may control operation of the Forward or Reverse Supplemental Code Channels by including Supplemental Code Channel assignment information in the *Supplemental Channel Assignment Message*, or the *General Handoff Direction Message*.
- The base station may control operation of the Forward or Reverse Supplemental Channels by including Supplemental Channel assignment information in the *Extended Supplemental Channel Assignment Message*, the *Forward Supplemental Channel Assignment Mini Message*, or the *Reverse Supplemental Channel Assignment Mini Message*.

- 1     • The base station may assign a new call by sending a *Call Assignment Message*,  
 2        *Service Connect Message*, *General Handoff Direction Message (with the Service*  
 3        *Configuration information record included)*, or *Universal Handoff Direction Message*  
 4        (*with the Service Configuration information record included*) to assign the call:
  - 5           – If the base station sends a *Call Assignment Message* to assign the call, the base  
 6           station shall perform the following:
    - 7              + The base station shall set the RESPONSE\_IND field to '0'.
    - 8              + The base station shall set the CON\_REF\_INCL field of the message to '1' and  
 9              the CON\_REF field of the message to the value of the connection reference of  
 10             the service option connection corresponding to this call.
    - 11              + A service option connection corresponding to this call (if not already  
 12             established) shall be established by performing service negotiation; the base  
 13             station should initiate service negotiation to establish the service option  
 14             connection, if permitted by the current service negotiation subfunction.
    - 15              + At the action time corresponding to this message, the *layer-3Layer 3* shall  
 16             instantiate a Call Control instance (as specified in 3.6.8). The *layer-3Layer 3*  
 17             shall identify this Call Control instance by the value of the CON\_REF field  
 18             included in the *Call Assignment Message*.
  - 19           – If the base station sends a *Service Connect Message*, *General Handoff Direction*  
 20        *Message (with the Service Configuration information record included)*, or  
 21        *Universal Handoff Direction Message* (*with the Service Configuration information*  
 22        *record included*) to assign the call, the base station shall perform the following:
    - 23              + The base station shall set the call control parameters corresponding to this  
 24             call included in the message as follows: The base station shall set the  
 25             RESPONSE\_IND field to '0', and the BYPASS\_ALERT\_ANSWER field as  
 26             required.
    - 27              + At the action time corresponding to this message, the *layer-3Layer 3* shall  
 28             instantiate a Call Control instance (as specified in 3.6.8). The *layer-3Layer 3*  
 29             shall identify this Call Control instance by the value of the CON\_REF  
 30             assigned to the service option connection corresponding to this call.
  - 31        • If the *layer-3Layer 3* receives a 'call release request' from a Call Control instance, the  
 32        *layer-3Layer 3* shall perform the following:
    - 33              – If the service option connection corresponding to this call is the only one  
 34             connected, the base station should send the mobile station a *Release Order* and  
 35             enter the *Release Substate*.

- 1        – If the service option connection corresponding to this call is not the only one  
 2        connected, the base station should release this service option connection. At the  
 3        action time of the message, the layer 3Layer 3 shall terminate this Call Control  
 4        instance.
- 5        • The base station may send the following messages. Some of these messages are  
 6        generated by the Call Control Instance. If the base station sends a message, the  
 7        base station shall comply with the specified requirements for sending the message,  
 8        if any:
  - 9        1. *Alert With Information Message*:
  - 10      2. *Analog Handoff Direction Message*: The base station shall perform the following:
    - 11        – If the CON\_REF\_INCL field was set to '0', the layer 3Layer 3 shall terminate  
 12        all Call Control instances (if there are any) except the one identified by NULL;  
 13        otherwise, the layer 3Layer 3 shall terminate all Call Control instances (if  
 14        there are any) except the one identified by CON\_REF field set in the message.  
 15        The base station shall perform the following (see [6] for handoff to a wide  
 16        analog channel and [22] for handoff to an 800 MHz narrow analog channel):
      - 17        + If this Call Control instance is in the *Waiting for Order Substate*, the base  
 18        station shall enter the Waiting for Order Task.
      - 19        + If this Call Control instance is in the *Waiting for Answer Substate*, the  
 20        base station shall enter the Waiting for Answer Task.
      - 21        + If this Call Control instance is in the *Conversation Substate*, the base  
 22        station shall enter the Conversation Task.
  - 23      3. *Audit Order*
  - 24      4. *Authentication Challenge Message*
  - 25      5. *Base Station Challenge Confirmation Order*
  - 26      6. *Base Station Status Response Message*
  - 27      6.7. *Call Assignment Message*
  - 28      7.8. *Candidate Frequency Search Request Message*
  - 29      8.9. *Candidate Frequency Search Control Message*
  - 30      9.10. *Continuous DTMF Tone Order*
  - 31      10.11. *Data Burst Message*
  - 32      11.12. *Extended Alert With Information Message*
  - 33      12.13. *Extended Flash With Information Message*
  - 34      13.14. *Extended Handoff Direction Message*
  - 35      14.15. *Extended Neighbor List Update Message*

- 1        [15.16. \*Extended Release Message:\*](#) If the physical channels indicated in CH\_IND  
 2                  field of this message includes all the physical channels currently being  
 3                  processed by the mobile station, the [layer 3Layer 3](#) shall send a “release  
 4                  indication” to all Call Control instances, and shall enter the *Release Substate*.
- 5        [16.17. \*Extended Release Mini Message:\*](#) If the physical channels indicated in  
 6                  CH\_IND field of this message includes all the physical channels currently being  
 7                  processed by the mobile station, the [layer 3Layer 3](#) shall send a “release  
 8                  indication” to all Call Control instances, and shall enter the *Release Substate*.
- 9        [17.18. \*Extended Supplemental Channel Assignment Message\*](#)
- 10      [18.19. \*Forward Supplemental Channel Assignment Mini Message\*](#)
- 11      [19.20. \*General Handoff Direction Message\*](#)
- 12      [20.21. \*Flash With Information Message\*](#)
- 13      [21.22. \*In-Traffic System Parameters Message\*](#)
- 14      [22.23. \*Local Control Order\*](#)
- 15      [23.24. \*Lock Until Power-Cycled Order:\*](#) The base station should send this order in  
 16                  unassured mode.
- 17      [24.25. \*Long Code Transition Request Order\*](#)
- 18      [25.26. \*Maintenance Order:\*](#)
- 19      [26.27. \*Maintenance Required Order\*](#)
- 20      [27.28. \*Message Encryption Mode Order\*](#)
- 21      [28.29. \*Mobile Assisted Burst Operation Parameters Message\*](#)
- 22      [29.30. \*Mobile Station Registered Message\*](#)
- 23      [30.31. \*Neighbor List Update Message\*](#)
- 24      [31.32. \*Parameter Update Order\* \(see 2.3.12.1.3\).](#)
- 25      [32.33. \*Periodic Pilot Measurement Request Order\*](#)
- 26      [33.34. \*Pilot Measurement Request Order\*](#)
- 27      [34.35. \*Power Control Message\*](#)
- 28      [35.36. \*Power Control Parameters Message\*](#)
- 29      [36.37. \*Power Up Function Message\*](#)
- 30      [37.38. \*Power Up Function Completion Message\*](#)
- 31      [38.39. \*Resource Allocation Message\*](#)
- 32      [39.40. \*Resource Allocation Mini Message\*](#)
- 33      [40.41. \*Release Order:\*](#) The [layer 3Layer 3](#) shall send a “release indication” to all Call  
 34                  Control instances, and shall enter the *Release Substate*.
- 35      [41.42. \*Retrieve Parameters Message\*](#)

1        [42.43. Retry Order](#)  
 2        [43.44. Reverse Supplemental Channel Assignment Mini Message](#)  
 3        [44.45. Security Mode Command Message](#)  
 4        [45.46. Send Burst DTMF Message](#)  
 5        [46.47. Service Connect Message:](#) The base station shall send the message in  
 6                  accordance with the requirements for the active service subfunction (see  
 7                  3.6.4.1.2.2).  
 8        [47.48. Service Option Control Message:](#) The base station shall send the message in  
 9                  accordance with the requirements for the active service subfunction (see  
 10                 3.6.4.1.2.2).  
 11      [48.49. Service Option Control Order](#)  
 12      [49.50. Service Option Request Order](#)  
 13      [50.51. Service Option Response Order](#)  
 14      [51.52. Service Redirection Message:](#) The ~~layer 3~~Layer 3 shall send a “release  
 15                 indication” to all Call Control instances, and shall enter the *Release Substate*.  
 16      [52.53. Service Request Message:](#) The base station shall send the message in  
 17                  accordance with the requirements for the active service subfunction (see  
 18                  3.6.4.1.2.2).  
 19      [53.54. Service Response Message:](#) The base station shall send the message in  
 20                  accordance with the requirements for the active service subfunction (see  
 21                  3.6.4.1.2.2).  
 22      [54.55. Set Parameters Message](#)  
 23      [55.56. SSD Update Message](#)  
 24      [56.57. Status Request Message](#)  
 25      [57.58. Status Request Order](#)  
 26      [58.59. Supplemental Channel Assignment Message](#)  
 27      [59.60. TMSI Assignment Message](#)  
 28      [60.61. Universal Handoff Direction Message](#)  
 29      [61.62. User Zone Reject Message](#)  
 30      [62.63. User Zone Update Message](#)

- 31     • If the base station receives one of the following messages from the mobile station,  
 32                  the base station shall process the message according to the specified requirements,  
 33                  if any:  
 34        1. *Base Station Challenge Order:* The base station shall process the message as  
 35                  described in 2.3.12.1.5.

- 1    [2. Base Station Status Request Message:](#) The base station shall process the message  
 2    as described in 3.6.4.1.9
- 3    [2.3. Call Cancel Message](#)
- 4    [3.4. Candidate Frequency Search Report Message:](#) The base station shall process  
 5    the message as described in 3.6.6.2.2.6.
- 6    [4.5. Candidate Frequency Search Response Message:](#) The base station shall  
 7    process the message as described in 3.6.6.2.2.4.
- 8    [5.6. Connect Order:](#) If the CON\_REF\_INCL field is not included in this message or  
 9    if the CON\_REF\_INCL field equals '0', the [layer 3Layer 3](#) shall deliver this  
 10   message to the Call Control instance identified by NULL; otherwise, the [layer](#)  
 11   [3Layer 3](#) shall deliver this message to the Call Control instance identified by  
 12   CON\_REF.
- 13   [6.7. Continuous DTMF Tone Order:](#) If the CON\_REF\_INCL field is not included in  
 14   this message or if the CON\_REF\_INCL field equals '0', the [layer 3Layer 3](#) shall  
 15   deliver this message to the Call Control instance identified by NULL; otherwise,  
 16   the [layer 3Layer 3](#) shall deliver this message to the Call Control instance  
 17   identified by CON\_REF.
- 18   [7.8. Data Burst Message](#)
- 19   [8.9. Enhanced Origination Message:](#) The base station shall process the message  
 20   as described in 3.6.4.1.7.
- 21   [9.10. Extended Flash With Information Message:](#) If CON\_REF\_INCL equals '0', the  
 22   [layer 3Layer 3](#) shall deliver this message to the Call Control instance identified  
 23   by NULL; otherwise, the [layer 3Layer 3](#) shall deliver this message to the Call  
 24   Control instance identified by CON\_REF.
- 25   [10.11. Extended Handoff Completion Message:](#) The base station shall process the  
 26   message as described in 3.6.6.2.2.7.
- 27   [11.12. Extended Pilot Strength Measurement Message:](#) The base station shall  
 28   process the message as described in 3.6.6.2.2.1.
- 29   [12.13. Extended Release Response Message.](#)
- 30   [13.14. Extended Release Response Mini Message.](#)
- 31   [14.15. Flash With Information Message:](#) The [layer 3Layer 3](#) shall deliver this  
 32   message to the Call Control instance identified by NULL.
- 33   [15.16. Handoff Completion Message:](#) The base station shall process the message as  
 34   described in 3.6.6.2.2.7.
- 35   [16.17. Local Control Response Order](#)
- 36   [17.18. Long Code Transition Request Order:](#) The base station shall process the  
 37   message as described in 3.6.4.1.5.
- 38   [18.19. Long Code Transition Response Order](#)

1           [19.20.](#) *Mobile Station Reject Order:* If the CON\_REF\_INCL field is included in this  
 2           message, ~~layer 3~~Layer 3 shall perform the following: if the CON\_REF\_INCL field  
 3           equals ‘0’, ~~layer 3~~Layer 3 shall send a ‘messages rejected indication’ to the Call  
 4           Control instance identified by NULL; otherwise, ~~layer 3~~Layer 3 shall send a  
 5           ‘messages rejected indication’ to the Call Control instance identified by  
 6           CON\_REF.

7           [20.21.](#) *Origination Continuation Message:* The ~~layer 3~~Layer 3 shall deliver this  
 8           message to the Call Control instance identified by NULL.

9           [21.22.](#) *Outer Loop Report Message*

10           [22.23.](#) *Parameters Response Message*

11           [23.24.](#) *Parameter Update Confirmation Order*

12           [24.25.](#) *Periodic Pilot Strength Measurement Message*

13           [25.26.](#) *Pilot Strength Measurement Message:* The base station shall process the  
 14           message as described in 3.6.6.2.2.1.

15           [26.27.](#) *Pilot Strength Measurement Mini Message*

16           [27.28.](#) *Power Measurement Report Message:* The base station may process the  
 17           message as described in 3.6.4.1.1.

18           [28.29.](#) *Release Order:* The base station shall send the mobile station a *Release  
 19           Order* within T2b seconds, and the ~~layer 3~~Layer 3 shall send a “release  
 20           indication” to all Call Control instances, and enter the *Release Substate*;  
 21           otherwise, the ~~layer 3~~Layer 3 shall send a “send alert with info message  
 22           indication” to all Call Control instances.

23           [29.30.](#) *Resource Release Request Message:* The base station shall process the  
 24           message as described in 3.6.4.1.8.

25           [30.31.](#) *Resource Release Request Mini Message:* The base station shall process the  
 26           message as described in 3.6.4.1.8.

27           [31.32.](#) *Resource Request Message:* The base station shall process the message as  
 28           described in 3.6.4.1.6.

29           [32.33.](#) *Resource Request Mini Message:* The base station shall process the message as  
 30           described in 3.6.4.1.6.

31           [33.34.](#) *Request Analog Service Order:* The base station may respond with an *Analog  
 32           Handoff Direction Message*.

33           [34.35.](#) *Request Narrow Analog Service Order:* The base station may respond with an  
 34           *Analog Handoff Direction Message*.

35           [35.36.](#) *Request Wide Analog Service Order:* The base station may respond with an  
 36           *Analog Handoff Direction Message*.

37           [36.37.](#) *Send Burst DTMF Message:* If the CON\_REF\_INCL field is not included in this  
 38           message or if the CON\_REF\_INCL field equals ‘0’, the ~~layer 3~~Layer 3 shall deliver

1           this message to the Call Control instance identified by NULL; otherwise, the  
 2           ~~layer-3~~Layer 3 shall deliver this message to the Call Control instance identified  
 3           by CON\_REF.

4           37.38. Service Connect Completion Message: The base station shall process the  
 5           message in accordance with the requirements for the active service subfunction  
 6           (see 3.6.4.1.2.2).

7           38.39. Service Option Control Message: The base station shall process the message  
 8           in accordance with the requirements for the active service subfunction (see  
 9           3.6.4.1.2.2).

10          39.40. Service Option Control Order: The base station shall process the message in  
 11           accordance with the requirements for the active service subfunction (see  
 12           3.6.4.1.2.2).

13          40.41. Service Option Request Order: The base station shall process the message in  
 14           accordance with the requirements for the active service subfunction (see  
 15           3.6.4.1.2.2).

16          41.42. Service Option Response Order: The base station shall process the message  
 17           in accordance with the requirements for the active service subfunction (see  
 18           3.6.4.1.2.2).

19          42.43. Service Request Message: The base station shall process the message in  
 20           accordance with the requirements for the active service subfunction (see  
 21           3.6.4.1.2.2).

22          43.44. Service Response Message: The base station shall process the message in  
 23           accordance with the requirements for the active service subfunction (see  
 24           3.6.4.1.2.2).

25          44.45. SSD Update Confirmation Order

26          45.46. SSD Update Rejection Order

27          46.47. Status Response Message

28          47.48. Status Message

29          48.49. Supplemental Channel Request Message: The base station may respond with  
 30           a *Supplemental Channel Assignment Message*, an *Extended Supplemental*  
 31           *Channel Assignment Message*, or a *Retry Order*.

32          49.50. Supplemental Channel Request Mini Message: The base station may respond  
 33           with a *Forward Supplemental Channel Assignment Mini Message* or a *Reverse*  
 34           *Supplemental Channel Assignment Mini Message*, or both. The base station may  
 35           also respond with a *Retry Order*.

36          50.51. TMSI Assignment Completion Message

37          51.52. User Zone Update Request Message: The base station shall process this  
 38           message as specified in 3.6.7.2.

## 1    3.6.4.4 Release Substate

2    In this substate, the base station disconnects all calls and physical channels.

3    While in the *Release Substate*, the base station shall perform the following:

- 4       • The base station shall transmit the power control subchannel as specified in [2].
- 5       • The base station shall transmit on the Forward Traffic Channel for at least T<sub>3b</sub>
- 6       seconds. The base station shall transmit null traffic and power control bits on the
- 7       Forward Fundamental Channel, except when transmitting signaling traffic, if the
- 8       Fundamental Channel is present or transmit power control bits on the Forward
- 9       Dedicated Control Channel, if only the dedicated Control Channel is present. After
- 10      T<sub>3b</sub> seconds, the base station should stop transmitting on the Forward Traffic
- 11      Channel.
- 12      • The base station shall process Reverse Traffic Channel signaling traffic and may
- 13      discard other types of Reverse Traffic Channel traffic.
- 14      • The base station may perform TMSI assignment procedures (see 2.3.15).
- 15      • The base station may perform Forward Traffic Channel power control as specified in
- 16      3.6.4.1.1.
- 17      • The base station may send a *Service Option Control Message* to invoke a service
- 18      option specific function in accordance with the requirements for the active service
- 19      subfunction (see 3.6.4.1.2.2).
- 20      • The base station may send the following messages. Some of these messages are
- 21      generated by the Call Control Instance. If the base station sends a message, the
- 22      base station shall comply with the specified requirements for sending the message,
- 23      if any.
  - 24       1. *Alert With Information Message*
  - 25       2. *Audit Order*
  - 26       3. *Candidate Frequency Search Request Message*
  - 27       4. *Candidate Frequency Search Control Message*
  - 28       5. *Data Burst Message*
  - 29       6. *Extended Alert With Information Message*
  - 30       7. *Extended Handoff Direction Message*
  - 31       8. *Extended Neighbor List Update Message*
  - 32       9. *Extended Release Message*
  - 33       10. *Extended Supplemental Channel Assignment Message*
  - 34       11. *Forward Supplemental Channel Assignment Mini Message*
  - 35       12. *General Handoff Direction Message*
  - 36       13. *In-Traffic System Parameters Message*

- 1        14. *Local Control Order*
- 2        15. *Lock Until Power-Cycled Order*: The base station should send this order in  
3              unassured mode.
- 4        16. *Maintenance Order*
- 5        17. *Maintenance Required Order*
- 6        18. *Mobile Assisted Burst Operation Parameters Message*
- 7        19. *Mobile Station Registered Message*
- 8        20. *Neighbor List Update Message*
- 9        21. *Parameter Update Order* (see 2.3.12.1.3 or 3.7.4).
- 10       22. *Power Control Message*
- 11       23. *Power Control Parameters Message*
- 12       24. *Power Up Function Message*
- 13       25. *Power Up Function Completion Message*
- 14       26. *Release Order*
- 15       27. *Resource Allocation Message*
- 16       28. *Resource Allocation Mini Message*
- 17       29. *Resource Release Request Message*
- 18       30. *Resource Release Request Mini Message*
- 19       31. *Resource Request Message*
- 20       32. *Resource Request Mini Message*
- 21       33. *Retrieve Parameters Message*
- 22       34. *Reverse Supplemental Channel Assignment Mini Message*
- 23       35. *Service Option Control Message*: The base station shall send the message in  
24              accordance with the requirements for the active service subfunction (see  
25                      3.6.4.1.2.2).
- 26       36. *Service Option Control Order*
- 27       37. *Status Request Message*
- 28       38. *Status Request Order*
- 29       39. *Supplemental Channel Assignment Message*
- 30       40. *TMSI Assignment Message*
- 31       41. *Universal Handoff Direction Message*
- 32       42. *User Zone Reject Message*
- 33       43. *User Zone Update Message*

- If the base station receives one of the following messages from the mobile station, the base station shall process the message according to the specified requirements, if any:
  1. *Base Station Challenge Order*: The base station shall process the message as described in 2.3.12.1.5.
  2. *Call Cancel Message*
  3. *Candidate Frequency Search Report Message*: The base station shall process the message as described in 3.6.6.2.2.6.
  4. *Candidate Frequency Search Response Message*: The base station shall process the message as described in 3.6.6.2.2.4.
  5. *Connect Order*: If the CON\_REF\_INCL field is not included in this message or if the CON\_REF\_INCL field equals '0', the [layer 3](#)[Layer 3](#) shall deliver this message to the Call Control instance identified by NULL; otherwise, the [layer 3](#)[Layer 3](#) shall deliver this message to the Call Control instance identified by CON\_REF.
  6. *Continuous DTMF Tone Order*: If the CON\_REF\_INCL field is not included in this message or if the CON\_REF\_INCL field equals '0', the [layer 3](#)[Layer 3](#) shall deliver this message to the Call Control instance identified by NULL; otherwise, the [layer 3](#)[Layer 3](#) shall deliver this message to the Call Control instance identified by CON\_REF.
  7. *Data Burst Message*
  8. *Enhanced Origination Message*
  9. *Extended Flash With Information Message*: If CON\_REF\_INCL equals '0', the [layer 3](#)[Layer 3](#) shall deliver this message to the Call Control instance identified by NULL; otherwise, the [layer 3](#)[Layer 3](#) shall deliver this message to the Call Control instance identified by CON\_REF.
  10. *Extended Handoff Completion Message*: The base station shall process the message as described in 3.6.6.2.2.7.
  11. *Extended Pilot Strength Measurement Message*: The base station shall process the message as described in 3.6.6.2.2.1.
  12. *Extended Release Response Message*:
  13. *Flash With Information Message*: The [layer 3](#)[Layer 3](#) shall deliver this message to the Call Control instance identified by NULL.
  14. *Handoff Completion Message*: The base station shall process the message as described in 3.6.6.2.2.7.
  15. *Local Control Response Order*
  16. *Long Code Transition Request Order*
  17. *Long Code Transition Response Order*

- 1       18. *Mobile Station Reject Order*: If the CON\_REF\_INCL field is included in this  
 2       message, ***layer 3Layer 3*** shall perform the following: if the CON\_REF\_INCL field  
 3       equals '0', ***layer 3Layer 3*** shall send a 'messages rejected indication' to the Call  
 4       Control instance identified by NULL; otherwise, ***layer 3Layer 3*** shall send a  
 5       'messages rejected indication' to the Call Control instance identified by  
 6       CON\_REF.
- 7       19. *Origination Continuation Message*: The ***layer 3Layer 3*** shall deliver this message  
 8       to the Call Control instance identified by NULL.
- 9       20. *Parameter Update Confirmation Order*
- 10      21. *Parameters Response Message*
- 11      22. *Periodic Pilot Strength Measurement Message*
- 12      23. *Pilot Strength Measurement Message*: The base station shall process the message  
 13       as described in 3.6.6.2.2.1.
- 14      24. *Power Measurement Report Message*
- 15      25. *Release Order*
- 16      26. *Request Analog Service Order*
- 17      27. *Request Narrow Analog Service Order*
- 18      28. *Request Wide Analog Service Order*
- 19      29. *Send Burst DTMF Message*: If the CON\_REF\_INCL field is not included in this  
 20       message or if the CON\_REF\_INCL field equals '0', the ***layer 3Layer 3*** shall deliver  
 21       this message to the Call Control instance identified by NULL; otherwise, the  
 22       ***layer 3Layer 3*** shall deliver this message to the Call Control instance identified  
 23       by CON\_REF.
- 24      30. *Service Connect Completion Message*
- 25      31. *Service Option Control Message*: The base station shall process the message in  
 26       accordance with the requirements for the active service subfunction (see  
 27       3.6.4.1.2.2).
- 28      32. *Service Option Control Order*
- 29      33. *Service Option Request Order*
- 30      34. *Service Option Response Order*
- 31      35. *Service Request Message*
- 32      36. *Service Response Message*:
- 33      37. *SSD Update Confirmation Order*
- 34      38. *SSD Update Rejection Order*
- 35      39. *Status Response Message*
- 36      40. *Status Message*

1           41. *TMSI Assignment Completion Message*2           42. *User Zone Update Request Message*: The base station shall process this message  
3           as specified in 3.6.7.2.

## 4           3.6.5 Registration

5           Registration is the process by which a mobile station notifies the base station of its location,  
6           status, identification, slot cycle, and other characteristics. The base station can make use  
7           of location information to efficiently page the mobile station when establishing a mobile  
8           station terminated call. Registration also provides the mobile station's  
9           SLOT\_CYCLE\_INDEX parameter so that the base station can determine which Paging  
10          Channel or Forward Common Control Channel slots a mobile station operating in the  
11          slotted mode is monitoring. Registration also provides the protocol revision number so that  
12          the base station knows the capabilities of the mobile station.

13          The CDMA system supports ten different forms of registration:

- 14           1. Power-up registration. The mobile station registers when it powers on, or switches  
15           from using the analog system.
- 16           2. Power-down registration. The mobile station registers when it powers off if  
17           previously registered in the current serving system.
- 18           3. Timer-based registration. The mobile station registers when a timer expires.
- 19           4. Distance-based registration. The mobile station registers when the distance  
20           between the current base station and the base station in which it last registered  
21           exceeds a threshold.
- 22           5. Zone-based registration. The mobile station registers when it enters a new zone.
- 23           6. Parameter-change registration. The mobile station registers when certain of its  
24           stored parameters change or when it enters a new system.
- 25           7. Ordered registration. The mobile station registers when the base station requests  
26           it.
- 27           8. Implicit registration. When a mobile station successfully sends an *Origination*  
28           *Message* or *Page Response Message*, the base station can infer the mobile station's  
29           location. This is considered an implicit registration.
- 30           9. Traffic Channel registration. Whenever the base station has registration  
31           information for a mobile station that has been assigned to a Traffic Channel, the  
32           base station can notify the mobile station that it is registered.
- 33           10. User Zone Registration. The mobile station registers when it selects an active User  
34           Zone (see 2.6.9.1.2).

35          The first five forms of registration, as a group, are called autonomous registration and are  
36          conditioned, in part, by roaming status and by indicators contained in the *System*  
37          *Parameters Message* and *ANSI-41 System Parameters Message* (see 2.6.5.3). The base  
38          station may initiate ordered registration through the *Registration Request Order*.

1 The base station can obtain registration information by sending the *Status Request Message*  
 2 to the mobile station on the Paging Channel, the Forward Common Control Channel, or the  
 3 Forward Traffic Channel. If the base station is operating with the mobile station in Band  
 4 Class 0, the base station can also obtain registration information by sending the *Status*  
 5 *Request Order* to the mobile station on the Forward Traffic Channel. The base station may  
 6 notify the mobile station that it is registered through the *Mobile Station Registered Message*.

7 3.6.5.1 Registration on the Common Channels

8 The base station shall specify the forms of registration that are enabled, the corresponding  
 9 registration parameters, and the roaming status conditions for which registration is enabled  
 10 in the *System Parameters Message* and *ANSI-41 System Parameters Message*. If any of the  
 11 autonomous registration forms are enabled, the base station should also enable parameter-  
 12 change registration.

13 The base station should process an *Origination Message* or *Page Response Message* sent on  
 14 the r-csch as an implicit registration of the mobile station sending the message. The base  
 15 station can obtain complete registration information about the mobile station at any time  
 16 by sending a *Registration Request Order* to the mobile station.

17 3.6.5.2 Registration on the Traffic Channels

18 The base station can obtain registration information from a mobile station on the Traffic  
 19 Channel by means of the *Status Request Message* or the *Status Request Order*. When the  
 20 base station has registration information for a mobile station, the base station may send a  
 21 *Mobile Station Registered Message* to the mobile station, specifying the base station's  
 22 registration system, zone, and location information.

23 3.6.6 Handoff Procedures

24 3.6.6.1 Overview

25 3.6.6.1.1 Types of Handoff

26 The base station supports the following three handoff procedures:

- 27 • *Soft Handoff*: A handoff in which a new base station commences communications  
 28 with the mobile station without interrupting the communications with the old base  
 29 station. The base station<sup>3</sup> can direct the mobile station to perform a soft handoff  
 30 only when all Forward Traffic Channels assigned to the mobile station have identical  
 31 band classes, frequency assignments and frame offsets. Soft handoff provides  
 32 diversity of Forward Traffic Channels and Reverse Traffic Channel paths on the  
 33 boundaries between base stations.

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<sup>3</sup>In this section the term base station may imply multiple cells or sectors.

- *CDMA-to-CDMA Hard Handoff*: A handoff in which the base station directs the mobile station to transition between disjoint sets of base stations, different band classes, different frequency assignments, [different radio configuration](#), or different frame offsets.

- *CDMA-to-Analog Handoff*: A handoff in which the base station directs the mobile station from a Forward Traffic Channel to an analog voice channel.

Base station support of CDMA-to-CDMA hard handoff between different band classes and support of CDMA-to-analog handoff is optional.

Section 2.6.6 describes the mobile station requirements during handoff.

#### 3.6.6.1.2 Active Set

The Active Set contains the pilots (see 2.6.6.1.2) associated with the Forward Traffic Channels assigned to the mobile station. Initially the base station informs the mobile station of the contents of the Active Set using the *Channel Assignment Message* or the *Extended Channel Assignment Message*; subsequent changes to the contents of the Active Set are provided using the *Extended Handoff Direction Message*, *General Handoff Direction Message*, or *Universal Handoff Direction Message*.

#### 3.6.6.2 Requirements

##### 3.6.6.2.1 Overhead Information

The base station sends the following messages governing the pilot search procedures performed by the mobile station:

- *System Parameters Message*
- *In-Traffic System Parameters Message*
- *Neighbor List Message*
- *Extended Neighbor List Message*
- *Neighbor List Update Message*
- *Extended Neighbor List Update Message*
- *General Neighbor List Message*
- *General Handoff Direction Message*
- *Extended Handoff Direction Message*
- *Candidate Frequency Search Request Message*
- *Candidate Frequency Search Control Message*
- *Universal Handoff Direction Message*
- *Universal Neighbor List Message*
- *MC-RR Parameters Message*

1       3.6.6.2.1.1 System Parameters

2       The base station sends handoff related parameters on the Paging Channel in the *System*  
 3       *Parameters Message* and the *Extended System Parameters Message*, and on the Primary  
 4       Broadcast Control Channel in the *MC-RR Parameters Message*.

5       The base station may revise handoff related parameters for a mobile station operating on  
 6       the Traffic Channel by sending the *In-Traffic System Parameters Message*.

7       The base station may modify the values of the parameters SRCH\_WIN\_A, T\_ADD, T\_DROP,  
 8       T\_COMP, and T\_TDROPO through the *Extended Handoff Direction Message*, the *General*  
 9       *Handoff Direction Message*, or the *Universal Handoff Direction Message*. In addition, the  
 10      base station may also modify the values of the parameters SRCH\_WIN\_N, SRCH\_WIN\_R,  
 11      SOFT\_SLOPE, ADD\_INTERCEPT, and DROP\_INTERCEPT through the *General Handoff*  
 12      *Direction Message* or the *Universal Handoff Direction Message*.

13      3.6.6.2.1.2 Neighbor List

14      The base station sends a Neighbor List on the Paging Channel in the *Neighbor List Message*,  
 15      the *Extended Neighbor List Message*, or the *General Neighbor List Message*. The base station  
 16      should list the pilots in the *Neighbor List Message* in descending priority order (see  
 17      2.6.6.2.6.3).

18      The base station may revise the Neighbor List for a mobile station operating on the Traffic  
 19      Channel by sending a *Neighbor List Update Message* or an *Extended Neighbor List Update*  
 20      *Message*.

21      The base station shall not include a pilot that is a member of the mobile station's Active Set  
 22      in a *Neighbor List Update Message* or an *Extended Neighbor List Update Message*. The base  
 23      station shall not specify more than N8m pilots in the *Neighbor List Message*, *Extended*  
 24      *Neighbor List Message*, *General Neighbor List Message*, or in the *Extended Neighbor List*  
 25      *Update Message*. The base station shall not specify more than 20 pilots in the *Neighbor List*  
 26      *Update Message*. The base station should list the pilots in the *Neighbor List Update*  
 27      *Message* in descending priority order (see 2.6.6.2.6.3).

28      The base station may also indicate the availability of neighboring analog systems in the  
 29      *General Neighbor List Message* to assist the mobile station in performing system reselection  
 30      (see 2.6.2.1.6).

31      3.6.6.2.1.3 Candidate Frequency Neighbor List

32      The base station sends a Candidate Frequency Neighbor List and inter-frequency hard  
 33      handoff related parameters in the *Candidate Frequency Search Request Message*. The base  
 34      station shall not specify more than N8m pilots in the *Candidate Frequency Search Request*  
 35      *Message*.

36      3.6.6.2.1.4 Candidate Frequency Search List

37      The base station designates a subset of the Candidate Frequency Neighbor List included in  
 38      the *Candidate Frequency Search Request Message* as the Candidate Frequency Search List.  
 39      For each pilot belonging to the Candidate Frequency Search List, the base station shall set

1 the corresponding SEARCH\_SET field of the *Candidate Frequency Search Request Message*  
 2 to '1'.

3 3.6.6.2.2 Call Processing During Handoff

4 3.6.6.2.2.1 Processing the Pilot Strength Measurement Message

5 The base station should use the pilot strength measurements in the *Pilot Strength*  
 6 *Measurement Message* or the *Extended Pilot Strength Measurement Message* to determine a  
 7 new Active Set.

8 The base station may also use the PN phase measurements in the *Pilot Strength*  
 9 *Measurement Message* or the *Extended Pilot Strength Measurement Message* to estimate the  
 10 propagation delay to the mobile station. This estimate can be used to reduce Reverse  
 11 Traffic Channel acquisition time.

12 The base station may respond to a *Pilot Strength Measurement Message* or an *Extended Pilot*  
 13 *Strength Measurement Message* received from the mobile station by sending the *Extended*  
 14 *Handoff Direction Message*, the *General Handoff Direction Message*, or the *Universal Handoff*  
 15 *Direction Message*.

16 3.6.6.2.2.2 Processing the Extended Handoff Direction Message

17 The base station shall maintain a handoff message sequence number. If the base station  
 18 specifies that the mobile station is to use service negotiation, the base station shall set the  
 19 SERV\_NEG variable (see 3.6.4.1.2.1.4) to be enabled at the action time of the message. The  
 20 sequence number shall be initialized to zero prior to the transmission of the first *Extended*  
 21 *Handoff Direction Message*, *General Handoff Direction Message* (see 3.6.6.2.2.10), or the  
 22 *Universal Handoff Direction Message* to the mobile station. The base station shall increment  
 23 the sequence number modulo 4 each time the base station modifies the pilot list (including  
 24 the order in which pilots are specified within the list) or the code channels (including a  
 25 change in the ordering such that the first code channel occurrence for any pilot is changed)  
 26 sent to the mobile station in an *Extended Handoff Direction Message*, a *General Handoff*  
 27 *Direction Message*, or a *Universal Handoff Direction Message*.

28 Following a hard handoff, the base station should set the handoff message sequence  
 29 number to the value of the LAST\_HDM\_SEQ field of the *Handoff Completion Message* or  
 30 *Extended Handoff Completion Message* and should use the pilot order contained in the  
 31 *Handoff Completion Message* or *Extended Handoff Completion Message* to interpret the  
 32 contents of subsequent *Power Measurement Report Messages*.

33 The base station shall set the contents of an *Extended Handoff Direction Message* according  
 34 to the following rules:

- 35 • An *Extended Handoff Direction Message* shall list no more than N<sub>6m</sub> pilots in the  
 36 new Active Set.
- 37 • An *Extended Handoff Direction Message* shall identify the identical power control  
 38 subchannels (i.e., those carrying identical power control bits).

- 1     • An *Extended Handoff Direction Message* may change the code channel associated  
2       with an Active Set pilot that remains in the new Active Set.
- 3     • The base station specifies the long code mask to be used on the new Forward Traffic  
4       Channel by using the PRIVATE\_LCM field of the *Extended Handoff Direction*  
5       *Message*. The base station may change the long code mask to be used on the new  
6       Forward Traffic Channel via the PRIVATE\_LCM field of the *Extended Handoff*  
7       *Direction Message* only for CDMA-to-CDMA hard handoffs. If a change of long code  
8       mask is specified and the base station does not specify an explicit action time in the  
9       *Extended Handoff Direction Message*, the base station shall begin using the new long  
10      code mask on the first 80 ms boundary (relative to System Time) occurring at least  
11      80 ms after the end of the frame containing the last bit of the message.
- 12     • For CDMA-to-CDMA handoffs, the base station may require the mobile station to  
13       perform a reset of the acknowledgment procedures by using the RESET\_L2 field of  
14       the *Extended Handoff Direction Message*. If the base station requires the mobile  
15       station to reset the acknowledgment procedures, Layer 3 shall send an indication to  
16       Layer 2 to reset the acknowledgment procedures (see 3.2.1.1 and 3.2.2.1 of [4]). The  
17       acknowledgment procedures shall be reset immediately after the action time of the  
18       *Extended Handoff Direction Message*.
- 19     • For CDMA-to-CDMA hard handoffs, the base station may alter the frame offset by  
20       setting the FRAME\_OFFSET field to a new value. If the base station specifies a new  
21       frame offset and does not specify an explicit action time, the base station shall  
22       change its Forward and Reverse Traffic Channel frame offsets at the second 80 ms  
23       boundary (relative to System Time) after the end of transmission of the *Extended*  
24       *Handoff Direction Message*, unless the end of transmission of the message coincides  
25       with an 80 ms boundary, in which case the change in frame offsets shall occur 80  
26       ms after the end of transmission.
- 27     • For CDMA-to-CDMA hard handoffs to Band Class 0 or Band Class 3, the base  
28       station may alter the nominal transmit power offset after handoff by setting the  
29       NOM\_PWR field to the new nominal transmit power offset. For CDMA-to-CDMA  
30       hard handoffs to band classes other than Band Class 0 and Band Class 3, the base  
31       station may alter the nominal transmit power offset after handoff by setting both the  
32       NOM\_PWR and NOM\_PWR\_EXT fields to the new nominal transmit power offset.
- 33     • The base station may specify a different band class by setting the BAND\_CLASS and  
34       CDMA\_FREQ fields to the band class and CDMA frequency assignment respectively.  
35       The base station shall not specify a band class not supported by the mobile station.
- 36     • If the base station sends the *Extended Handoff Direction Message* in assured mode,  
37       the base station should set the action time of the message such that there is  
38       sufficient time for the mobile station to transmit a message containing the  
39       acknowledgment prior to the action time.

- 1     • For CDMA-to-CDMA hard handoffs, the base station may specify whether the mobile  
2       station is to use service negotiation or service option negotiation by setting the  
3       SERV\_NEG\_TYPE field of the *Extended Handoff Direction Message*. If the base  
4       station specifies that the mobile station is to use service negotiation, the base  
5       station shall set the SERV\_NEG variable (see 3.6.4.1.2.1.4) to enabled at the action  
6       time of message. If the base station specifies that the mobile station is to use  
7       service option negotiation, the base station shall set SERV\_NEG to disabled at the  
8       action time of the message.

9     3.6.6.2.2.3 Processing the Candidate Frequency Search Request Message

10    The base station may send a *Candidate Frequency Search Request Message* to direct the  
11      mobile station to perform a single or periodic search on the Candidate Frequency.

12    The base station may request the mobile station to perform an aligned search of the  
13      Candidate Frequency Search Set (see 2.6.6.2.8.3). If the base station requests the mobile  
14      station to perform an aligned search, the base station shall specify an explicit action time  
15      for the *Candidate Frequency Search Request Message*.

16    The base station shall maintain a search message sequence number. The sequence number  
17      shall be initialized to zero prior to the transmission of the first *Candidate Frequency Search*  
18      *Request Message* to the mobile station. Each time the base station sends a new *Candidate*  
19      *Frequency Search Request Message* to the mobile station, it shall set the CFSRM\_SEQ field  
20      to the current value of the sequence number, and increment the sequence number modulo  
21      4.

22     3.6.6.2.2.4 Processing the Candidate Frequency Search Response Message

23    The base station should use the mobile station's search capabilities as reported in the  
24      *Candidate Frequency Search Response Message* to determine an appropriate period for the  
25      mobile station's periodic search on the Candidate Frequency.

26     3.6.6.2.2.5 Processing the Candidate Frequency Search Control Message

27    The base station may send a *Candidate Frequency Search Control Message* to direct the  
28      mobile station to perform a single search, or to start or stop a periodic search on the  
29      Candidate Frequency.

30    The base station may request the mobile station to perform an aligned search of the  
31      Candidate Frequency Search Set (see 2.6.6.2.8.3). If the base station requests the mobile  
32      station to perform an aligned search, the base station shall specify an explicit action time  
33      for the *Candidate Frequency Search Control Message*.

34    Each time the base station sends a new *Candidate Frequency Search Control Message* to the  
35      mobile station, it shall set the CFSCM\_SEQ field to the current value of the sequence  
36      number, and increment the sequence number modulo 4.

1       3.6.6.2.2.6 Processing the Candidate Frequency Search Report Message

2       The base station should use the value of the LAST\_SRCH\_MSG field and of the  
 3       LAST\_SRCH\_MSG\_SEQ field of the *Candidate Frequency Search Report Message* to interpret  
 4       the contents of the message.

5       If the SEARCH\_MODE field of the *Candidate Frequency Search Report Message* is equal to  
 6       ‘0000’, the base station should use the pilot strength measurements in the message to  
 7       determine whether to direct the mobile station to perform a CDMA-to-CDMA inter-  
 8       frequency handoff, and to determine the new Active Set. If the SEARCH\_MODE field of the  
 9       *Candidate Frequency Search Report Message* is equal to ‘0001’, the base station should use  
 10      the analog frequency strength measurements in the message to determine whether to direct  
 11      the mobile station to perform a CDMA-to-Analog handoff.

12      3.6.6.2.2.7 Transmitting During Handoff

13      The base station shall continue transmission to the mobile station on the Fundamental  
 14      Channel or the Dedicated Control Channel of a Forward Traffic Channel removed from the  
 15      Active Set until it receives the *Handoff Completion Message* or *Extended Handoff Completion  
 16      Message* from the mobile station or determines that the call has been released.

17      The base station should discontinue transmission to the mobile station on the Fundamental  
 18      Channel or the Dedicated Control Channel of a Forward Traffic Channel removed from the Active Set after it receives the *Handoff Completion Message* or *Extended  
 19      Handoff Completion Message*.

21      For Forward Multiplex Options 3 through 16, the base station should discontinue  
 22      transmission of Forward Supplemental Code Channels removed from the Code Channel List  
 23      according to the following rules:

- 24       • If a *General Handoff Direction Message* is used to remove one or more Forward  
 25          Supplemental Code Channels, the base station should discontinue transmission on  
 26          those code channels no later than the action time of the *General Handoff Direction  
 27          Message*.
- 28       • If a *Supplemental Channel Assignment Message* is used to remove one or more  
 29          Forward Supplemental Code Channels, the base station should discontinue  
 30          transmission on those Forward Supplemental Code Channels no later than the  
 31          implicit action time of the *Supplemental Channel Assignment Message*.

32      3.6.6.2.2.8 Ordering Pilot Measurements From the Mobile Station

33      The base station may direct the mobile station to send a *Pilot Strength Measurement  
 34      Message* by sending a *Pilot Measurement Request Order*.

35      The base station may send a *Periodic Pilot Measurement Request Order* to direct the mobile  
 36      station to send pilot strength measurements one time or periodically. In response to the  
 37      order, the mobile station reports the pilot strength measurements using the *Periodic Pilot  
 38      Strength Measurement Message*.

1    3.6.6.2.2.9 Processing the Supplemental Channel Assignment Message

2    The base station may use this message to specify Supplemental Code Channel assignment  
3    parameters for the mobile station's Forward Traffic Channel, Reverse Traffic Channel, or  
4    both. This information includes the parameters that control the timing of the Supplemental  
5    Code Channel assignment (e.g., starting time and duration), and parameters that control  
6    the number of Supplemental Code Channels which will be used during the assignment  
7    (e.g., the number of Reverse Supplemental Code Channels on which the mobile station may  
8    transmit and the set of Walsh codes on which the mobile station receives Forward  
9    Supplemental Code Channels for each pilot in the mobile station's Active Set). The  
10   *Supplemental Channel Assignment Message* shall be used only with Multiplex Options 3  
11   through 16.

12   The base station shall set the content of a *Supplemental Channel Assignment Message*  
13   according to the following rules:

- 14   • The base station may set USE\_RETRY\_DELAY to '1' and RETRY\_DELAY to a delay in  
15   320 ms units starting at the next 80 ms system time boundary during which the  
16   mobile station is to refrain from sending subsequent *Supplemental Channel Request*  
17   *Messages*. The base station may set RETRY\_DELAY to '11111111' to indicate that  
18   the mobile station is to refrain from transmitting *Supplemental Channel Request*  
19   *Messages* indefinitely. Otherwise, the base station shall set USE\_RETRY\_DELAY to  
20   '0' and omit RETRY\_DELAY in which case the mobile station is to reset any  
21   previously set RETRY\_DELAY indication.
- 22   • The base station shall set REV\_DTX\_DURATION to the maximum duration of time in  
23   units of 20 ms that the mobile station is allowed to stop transmission on a Reverse  
24   Supplemental Code Channel before resuming transmission on the Reverse  
25   Supplemental Code Channel within the reverse assignment duration. The base  
26   station shall set this field to '0000' if the mobile station is to stop using a Reverse  
27   Supplemental Code Channel once it has stopped transmitting on that Reverse  
28   Supplemental Code Channel. The base station shall set this field to '1111' if the  
29   mobile station is allowed to resume transmission on a Reverse Supplemental Code  
30   Channel at any time within the reverse assignment duration.
- 31   • A *Supplemental Channel Assignment Message* may specify Reverse Supplemental  
32   Code Channel assignments. If Reverse Supplemental Code Channel assignment  
33   information is included, the base station shall set REV\_INCLUDED to '1' and include  
34   the appropriate Reverse Supplemental Code Channel assignment information.  
35   Otherwise, the base station shall set REV\_INCLUDED to '0'.
- 36   • The base station shall indicate the implicit, explicit, or linked start time for a  
37   Reverse Supplemental Code Channel assignment as follows:
  - 38   – The base station may set EXPL\_REV\_START\_TIME to '1' and set  
39   REV\_START\_TIME to the System Time, in units of 80 ms (modulo 64), at which  
40   the mobile station is to start transmitting on the Reverse Supplemental Code  
41   Channels.

- The base station may set USE\_REV\_HDM\_SEQ to ‘1’ and set REV\_LINKED\_HDM\_SEQ to the sequence number of the *General Handoff Direction Message* (HDM\_SEQ) with which this message is linked to indicate that the mobile station is to start processing the Reverse Supplemental Code Channels at the action time of the linked *General Handoff Direction Message*.
- The base station may set EXPL\_REV\_START\_TIME to ‘0’ and USE\_REV\_HDM\_SEQ to ‘0’ to indicate that the mobile station is to start processing Reverse Supplemental Code Channels at the implicit action time of this message.
- The base station shall not set both EXPL\_REV\_START\_TIME and USE\_REV\_HDM\_SEQ to ‘1’.
- The base station may set USE\_REV\_DURATION to ‘1’ and REV\_DURATION to the time interval, in units of 80 ms, after the implicit, explicit, or linked action time for the message (as specified in 2.6.6.2.5.1), during which the mobile station is to transmit on the specified Reverse Supplemental Code Channels. The base station may set USE\_REV\_DURATION to ‘0’ to indicate an infinite duration for the assignment of Reverse Supplemental Code Channels. If NUM\_REV\_CODES is ‘000’, then the base station shall set USE\_REV\_DURATION to ‘0’.
- If Reverse Supplemental Code Channel assignment information is included, the base station shall set NUM\_REV\_CODES to the number of Reverse Supplemental Code Channels to be used in this Reverse Supplemental Code Channel assignment. The base station shall not set NUM\_REV\_CODES to be greater than the number of codes supported by the currently negotiated multiplex option.
- The base station may set USE\_T\_ADD\_ABORT, the Reverse Supplemental Code Channel assignment T\_ADD abort indicator, to ‘1’ to indicate that the mobile station is to abort Reverse Supplemental Code Channel assignments implicitly when a T\_ADD trigger occurs. Otherwise, the base station shall set USE\_T\_ADD\_ABORT to ‘0’. If NUM\_REV\_CODES is set to ‘000’, the base station shall set USE\_T\_ADD\_ABORT to ‘0’.
- If the base station is sending this message in response to a *Supplemental Channel Request Message* which includes a *Supplemental Channel Request Message* sequence number and the mobile station is to clear the IGNORE\_SCAM field, the base station shall set USE\_SCRM\_SEQ\_NUM to ‘1’ and set SCRM\_SEQ\_NUM to the sequence number corresponding to the SCRM\_SEQ\_NUM field in a *Supplemental Channel Request Message* to which the mobile station is to match this message. Otherwise, the base station shall set USE\_SCRM\_SEQ\_NUM to ‘0’ and omit SCRM\_SEQ\_NUM.
- A *Supplemental Channel Assignment Message* may specify Forward Supplemental Code Channel assignments. If Forward Supplemental Code Channel assignment information is included, the base station shall set FORINCLUDED to ‘1’ and include the appropriate Forward Supplemental Code Channel assignment information. Otherwise, the base station shall set FORINCLUDED to ‘0’.

- 1     • The base station shall set FOR\_SUP\_CONFIG to '00' if the mobile station is to stop  
2       processing the forward supplemental code after the action time of the *Supplemental*  
3       *Channel Assignment Message*. The base station should not transmit to the mobile  
4       station on the Forward Supplemental Code Channels after the message takes effect.
- 5     • The base station shall set FOR\_SUP\_CONFIG to '01' if the mobile station is to start  
6       processing the Forward Supplemental Code Channels in the Code Channel List at  
7       the implicit, explicit, or linked action time for the message as specified in  
8       2.6.6.2.5.1.
- 9     • The base station shall set FOR\_SUP\_CONFIG to '10' if the Forward Supplemental  
10      Code Channels associated with the pilots in the Active set are specified in the  
11      *Supplemental Channel Assignment Message* and is to stop processing Forward  
12      Supplemental Code Channels at the implicit action time of the message. The base  
13      station should not transmit to the mobile station on the Forward Supplemental  
14      Code Channels after the message takes effect.
- 15     • The base station shall set FOR\_SUP\_CONFIG to '11' if the Forward Supplemental  
16      Code Channels associated with the pilots in the Active set are specified in the  
17      *Supplemental Channel Assignment Message* and the mobile station is to start  
18      processing the Forward Supplemental Code Channels at the implicit, explicit, or  
19      linked action time for the message as specified in 2.6.6.2.5.1.
- 20     • The base station shall set FOR\_DURATION to the time interval, in units of 80 ms,  
21       after the implicit, explicit, or linked action time for the message (as specified in  
22       2.6.6.2.5.1), during which the mobile station is to process the specified Forward  
23       Supplemental Code Channels. The base station may set USE\_FOR\_DURATION to '0'  
24       to indicate an infinite duration for the allocation of Forward Supplemental Code  
25       Channels. The base station should not transmit to the mobile station on the  
26       Forward Supplemental Code Channels outside the time interval specified by  
27       FOR\_DURATION.
- 28     • The base station may set EXPL\_FOR\_START\_TIME to '1' and set FOR\_START\_TIME  
29       to the System Time, in units of 80 ms (modulo 64), at which the mobile station is to  
30       start processing the Forward Supplemental Code Channels.
- 31     • The base station may set USE\_FOR\_HDM\_SEQ to '1' and set  
32       FOR\_LINKED\_HDM\_SEQ to the sequence number of the *General Handoff Direction*  
33       *Message* (HDM\_SEQ) with which this message is linked to indicate that the mobile  
34       station is to start processing the Forward Supplemental Code Channels at the action  
35       time of the linked *General Handoff Direction Message*.
- 36     • The base station shall not set both USE\_FOR\_HDM\_SEQ and  
37       EXPL\_FOR\_START\_TIME within a *Supplemental Channel Assignment Message* to '1'.
- 38     • The number of Supplemental Code Channels assigned by *Supplemental Channel*  
39       *Assignment Message* shall not exceed the maximum number of Supplemental Code  
40       Channels for the negotiated Forward Multiplex Option.

- 1     • The base station may set EXPL\_FOR\_START\_TIME to '0' and USE\_FOR\_HDM\_SEQ  
 2       to '0' to indicate that the mobile station is to start processing Forward Supplemental  
 3       Code Channels at the implicit action time of this message.

4     3.6.6.2.2.10 Processing the General Handoff Direction Message

5     The base station shall maintain a handoff message sequence number. The sequence  
 6       number shall be initialized to zero prior to the transmission of the first *Extended Handoff*  
 7       *Direction Message*, *General Handoff Direction Message*, or *Universal Handoff Direction*  
 8       *Message* (see 3.6.6.2.2.11) to the mobile station (see 2.6.6.2.2.2). The base station shall  
 9       increment the sequence number modulo 4 each time the base station modifies the pilot list  
 10      (including the order in which pilots are specified within the list) or the code channels  
 11      (including a change in the ordering such that the first code channel occurrence for any pilot  
 12       is changed) sent to the mobile station in an *Extended Handoff Direction Message*, ~~or a~~  
 13       *General Handoff Direction Message*, or ~~a~~*Universal Handoff Direction Message*.

14    Following a hard handoff, the base station should set the handoff message sequence number  
 15      to the value of the LAST\_HDM\_SEQ field of the *Handoff Completion Message* or  
 16      *Extended Handoff Completion Message* and should use the pilot order contained in the  
 17      *Handoff Completion Message* or *Extended Handoff Completion Message* to interpret the  
 18      contents of subsequent *Power Measurement Report Messages*.

19    The base station shall set the contents of a *General Handoff Direction Message* according to  
 20      the following rules:

- 21     • A *General Handoff Direction Message* shall list no more than N<sub>6m</sub> pilots in the new  
 22       Active Set.
- 23     • The base station may include a Service Configuration Information Record in the  
 24       *General Handoff Direction Message* to accept a service configuration proposed in a  
 25       *Service Request Message* or *Service Response Message*, and instruct the mobile  
 26       station to begin using the service configuration.
- 27     • A *General Handoff Direction Message* shall identify the identical power control  
 28       subchannels (i.e., those carrying identical power control bits).
- 29     • A *General Handoff Direction Message* shall identify the transmit power level of the  
 30       power control subchannels to the transmit power level of 20 ms frames at a 9600  
 31       bps or 14400 bps rate on their respective associated channels (Forward  
 32       Fundamental Channel or Forward Dedicated Control Channel).
- 33     • For CDMA-to-CDMA handoffs, the base station may specify Power Control  
 34       Subchannel Gain action time [PC\_ACTION\_TIME]. If PC\_ACTION\_TIME is included  
 35       in this message, the base station shall apply the new FPC\_SUBCHAN\_GAIN at the  
 36       time specified by PC\_ACTION\_TIME. If the PC\_ACTION\_TIME is not included in this  
 37       message but the explicit action time is included, the base station shall apply the  
 38       new FPC\_SUBCHAN\_GAIN at the action time of the *General Handoff Direction*  
 39       *Message*. If the implicit action time is used, the base station should gradually apply  
 40       any change in FPC\_SUBCHAN\_GAIN.

- 1     • A *General Handoff Direction Message* may change the code channel associated with  
2       an Active Set pilot that remains in the new Active Set.
- 3     • The base station specifies the long code mask to be used on the new Forward Traffic  
4       Channel by using the PRIVATE\_LCM field of the *General Handoff Direction Message*.  
5       The base station may change the long code mask to be used on the new Forward  
6       Traffic Channel via the PRIVATE\_LCM field of the *General Handoff Direction Message*  
7       only for CDMA-to-CDMA hard handoffs. If a change of long code mask is specified  
8       and the base station does not specify an explicit action time in the *General Handoff  
9       Direction Message*, the base station shall begin using the new long code mask on the  
10      first 80 ms boundary (relative to System Time) occurring at least 80 ms after the end  
11      of the frame containing the last bit of the message.
- 12     • For CDMA-to-CDMA handoffs, the base station may require the mobile station to  
13       perform a reset of the acknowledgment procedures by using the RESET\_L2 field of  
14       the *General Handoff Direction Message*. If the base station requires the mobile  
15       station to reset the acknowledgment procedures, Layer 3 shall send an indication to  
16       Layer 2 to reset the acknowledgment procedures (see 3.2.1.1 and 3.2.2.1 of [4]). The  
17       acknowledgment procedures of the base station that the mobile station is to handoff  
18       to shall be reset immediately after the action time of the *General Handoff Direction  
19       Message*.
- 20     • For CDMA-to-CDMA hard handoffs, the base station may alter the frame offset by  
21       setting the FRAME\_OFFSET field to a new value. If the base station specifies a new  
22       frame offset and does not specify an explicit action time, the base station shall  
23       change its Forward and Reverse Traffic Channel frame offsets at the second 80 ms  
24       boundary (relative to System Time) after the end of transmission of the *General  
25       Handoff Direction Message*, unless the end of transmission of the message coincides  
26       with an 80 ms boundary, in which case the change in frame offsets shall occur 80  
27       ms after the end of transmission.
- 28     • For CDMA-to-CDMA hard handoffs to Band Class 0 or Band Class 3, the base  
29       station may alter the nominal transmit power offset after handoff by setting the  
30       NOM\_PWR field to the new nominal transmit power offset. For CDMA-to-CDMA  
31       hard handoffs to band classes other than Band Class 0 and Band Class 3, the base  
32       station may alter the nominal transmit power offset after handoff by setting both the  
33       NOM\_PWR and NOM\_PWR\_EXT fields to the new nominal transmit power offset.
- 34     • The base station may specify a different band class by setting the BAND\_CLASS and  
35       CDMA\_FREQ fields to the band class and CDMA frequency assignment respectively.  
36       The base station shall not specify a band class not supported by the mobile station.
- 37     • If the base station sends the *General Handoff Direction Message* in assured mode,  
38       the base station should set the action time of the message such that there is  
39       sufficient time for the mobile station to transmit a message containing the  
40       acknowledgment prior to the action time.

- 1     • For CDMA-to-CDMA hard handoffs, the base station may specify whether the mobile  
2       station is to use service negotiation or service option negotiation by setting the  
3       SERV\_NEG\_TYPE field of the *General Handoff Direction Message*. If the base station  
4       specifies that the mobile station is to use service negotiation, the base station shall  
5       set the SERV\_NEG variable (see 3.6.4.1.2.1.4) to enabled at the action time of  
6       message. If the base station specifies that the mobile station is to use service option  
7       negotiation, the base station shall set SERV\_NEG to disabled at the action time of  
8       the message.
- 9     • The base station may specify whether the mobile station is to restore its  
10      configuration to what it was before the handoff attempt, if it fails in the handoff  
11      attempt using criteria specified in the *Candidate Frequency Search Request Message*,  
12      by using the RETURN\_IF\_HANDOFF\_FAIL field of the *General Handoff Direction  
Message*. The base station may specify whether the mobile station is to periodically  
13      search a CDMA Candidate Frequency for useable pilots, using criteria specified in  
14      the *Candidate Frequency Search Request Message*, by using the PERIODIC\_SEARCH  
15      field of the *General Handoff Direction Message*.
- 16     • The base station may include Forward Supplemental Code Channel assignment  
17      information in the *General Handoff Direction Message* if the Forward Multiplex  
18      Option for the currently connected service option is 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13,  
19      14, 15, or 16. If Forward Supplemental Code Channel assignment information is  
20      included, the base station shall include FORINCLUDED, set FORINCLUDED to '1',  
21      and include the appropriate Forward Supplemental Code Channel assignment  
22      information.
- 23     • The number of Forward Supplemental Code Channels assigned by the *General  
Handoff Direction Message* shall not exceed the maximum number of Forward  
25      Supplemental Code Channels for the negotiated Forward Multiplex Option.
- 26     • The base station shall set FOR\_SUP\_CONFIG to '00' if the mobile station is to stop  
27      processing the Forward Supplemental Code Channel after the action time of *General  
Handoff Direction Message*. The base station should not transmit to the mobile  
28      station on the Forward Supplemental Code Channels after the message takes effect.
- 29     • The base station shall set FOR\_SUP\_CONFIG to '01' if the mobile station is to start  
30      processing the Forward Supplemental Code Channels in the Code Channel List at  
31      the action time of the message.
- 32     • The base station shall set FOR\_SUP\_CONFIG to '10' if the Forward Supplemental  
33      Code Channels associated with the pilots in the Active set are specified in the  
34      *General Handoff Direction Message* and the mobile station is to stop processing  
35      Forward Supplemental Code Channels at the implicit action time of the message.  
36      The base station should not transmit to the mobile station on the Forward  
37      Supplemental Code Channels after the message takes effect.
- 38     • The base station shall set FOR\_SUP\_CONFIG to '11' if the Forward Supplemental  
39      Code Channels associated with the pilots in the Active set are specified in the  
40      *General Handoff Direction Message* and the mobile station is to start processing the  
41      Forward Supplemental Code Channels at the action time of the message.

- 1     • The base station shall set FOR\_DURATION to the time interval after the action time  
2         of the message, in units of 80 ms, during which the mobile station is to process the  
3         specified Forward Supplemental Code Channels. The base station may set  
4         USE\_FOR\_DURATION to '0' to indicate an infinite duration for the allocation of  
5         Forward Supplemental Code Channels. The base station should not transmit to the  
6         mobile station on the Forward Supplemental Code Channels outside the time  
7         interval specified by FOR\_DURATION.
- 8     • If FORINCLUDED is included in the message, the base station shall include  
9         EXPL\_CODE\_CHAN for each pilot included in the message. If EXPL\_CODE\_CHAN is  
10        included and set to '1' for a pilot, the code channels associated with the pilot in the  
11        *General Handoff Direction Message* shall be ordered such that the first code channel  
12        occurrence is associated with the Forward Fundamental Channel and the successive  
13        occurrences are associated with Forward Supplemental Code Channels. If  
14        EXPL\_CODE\_CHAN is included and is set to '0', for each pilot in the new Active Set,  
15        the base station shall include BASE\_CODE\_CHAN and set it to the base code  
16        channel index in the range of 1 to (63 - NUM\_FOR\_SUP + 1), inclusive, that the  
17        mobile station is to use as the first Forward Supplemental Code Channel associated  
18        with this pilot. The mobile station is to use NUM\_FOR\_SUP adjacent code channels  
19        beginning with index BASE\_CODE\_CHAN (i.e., BASE\_CODE\_CHAN through  
20        BASE\_CODE\_CHAN + NUM\_FOR\_SUP - 1) for the Forward Supplemental Code  
21        Channels associated with this pilot.
- 22     • The base station may include Reverse Supplemental Code Channel assignment  
23        information in the *General Handoff Direction Message* if the Reverse Multiplex  
24        Option is 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, or 16. If Reverse Supplemental  
25        Code Channel assignment information is included, the base station shall include  
26        REVINCLUDED, set REVINCLUDED to '1', and include the appropriate Reverse  
27        Supplemental Code Channel assignment information in the additional fields.
- 28     • If Reverse Supplemental Code Channel assignment information is included, the base  
29        station shall set NUM\_REV\_CODES to the number of Reverse Supplemental Code  
30        Channels to be used by the mobile station. The base station shall not set  
31        NUM\_REV\_CODES to be greater than the number of codes supported by the  
32        currently negotiated multiplex option.
- 33     • The base station may set USE\_T\_ADD\_ABORT, the Reverse Supplemental Code  
34        Channel assignment T\_ADD abort indicator, to '1' to indicate that the mobile station  
35        is to abort Reverse Supplemental Code Channel assignments implicitly when a  
36        T\_ADD trigger occurs. Otherwise, the base station shall set USE\_T\_ADD\_ABORT to  
37        '0'. If NUM\_REV\_CODES is set to '000', the base station shall set  
38        USE\_T\_ADD\_ABORT to '0'.

- 1     • The base station shall set REV\_DTX\_DURATION to the maximum duration of time in  
 2       units of 20 ms that the mobile station is allowed to stop transmission on a Reverse  
 3       Supplemental Code Channel before resuming transmission on the Reverse  
 4       Supplemental Code Channel. The base station shall set this field to '0000' if the  
 5       mobile station is to stop using a Reverse Supplemental Code Channel once it has  
 6       stopped transmitting on that Reverse Supplemental Code Channel. The base station  
 7       shall set this field to '1111' if the mobile station is allowed to resume transmission  
 8       on a Reverse Supplemental Code Channel at any time within the reverse assignment  
 9       duration.
- 10    • The base station may set CLEAR\_RETRY\_DELAY to '1' to indicate that the mobile  
 11      station is to cancel any previously stored retry delay. Otherwise, the base station  
 12      shall set CLEAR\_RETRY\_DELAY to '0' to indicate that the mobile station is to  
 13      continue to honor any previously stored retry delay (see 2.6.6.2.5.1).
- 14    • The base station may indicate a duration for the Reverse Supplemental Code  
 15      Channel assignment (in 80 ms superframes) by setting USE\_REV\_DURATION to '1'  
 16      and indicating the desired duration in the REV\_DURATION field. If  
 17      USE\_REV\_DURATION is set to '0', a duration of infinity is indicated, and the base  
 18      station shall set the REV\_DURATION to '00000000'. If NUM\_REV\_CODES is '000',  
 19      then the base station shall set USE\_REV\_DURATION to '0' and shall set  
 20      REV\_DURATION to '00000000'.
- 21    • The base station may set USE\_REV\_DURATION to '1' and REV\_DURATION to the  
 22      time interval after the action time of the message, in units of 80 ms, during which  
 23      the mobile station may transmit on the assigned Reverse Supplemental Code  
 24      Channels. The base station may set USE\_REV\_DURATION to '0' to indicate an  
 25      infinite duration for the allocation of Forward Supplemental Code Channels.
- 26    • The base station may specify a closed loop power control step size by setting  
 27      USE\_PWR\_CNTL\_STEP to '1' and indicating the desired power control step size in  
 28      the PWR\_CNTL\_STEP field (see 2.1.2.3.2). Otherwise, the base station shall set  
 29      USE\_PWR\_CNTL\_STEP to '0'. The base station shall not specify a power control step  
 30      size not supported by the mobile station.

### 31    3.6.6.2.2.11 Processing the Universal Handoff Direction Message

32    The base station shall maintain a handoff message sequence number. The sequence  
 33    number shall be initialized to zero prior to the transmission of the first *Extended Handoff*  
 34    *Direction Message* (see 3.6.6.2.2.2), *General Handoff Direction Message* (see 3.6.6.2.2.10), or  
 35    *Universal Handoff Direction Message* to the mobile station. The base station shall increment  
 36    the sequence number modulo 4 each time the base station modifies the pilot list (including  
 37    the order in which pilots are specified within the list) or the code channels (including a  
 38    change in the ordering such that the first code channel occurrence for any pilot is changed)  
 39    sent to the mobile station in an *Extended Handoff Direction Message*, a *General Handoff*  
 40    *Direction Message*, or an *Universal Direction Message*.

41    Following a hard handoff, the base station should set the handoff message sequence  
 42    number to the value of the LAST\_HDM\_SEQ field of the *Handoff Completion Message* or

1    *Extended Handoff Completion Message* and should use the pilot order contained in the  
2    *Handoff Completion Message* or *Extended Handoff Completion Message* to interpret the  
3    contents of subsequent *Power Measurement Report Messages*.

4    The base station shall set the contents of a *Universal Handoff Direction Message* according  
5    to the following rules:

- 6       • A *Universal Handoff Direction Message* shall list no more than  $N_{6m}$  pilots in the new  
7       Active Set.
- 8       • The base station may include a Service Configuration Information Record in the  
9       *Universal Handoff Direction Message* to accept a service configuration proposed in a  
10      *Service Request Message* or *Service Response Message*, and instruct the mobile  
11      station to begin using the service configuration.
- 12      • A *Universal Handoff Direction Message* shall identify the identical power control  
13      subchannels (i.e., those carrying identical power control bits).
- 14      • A *Universal Handoff Direction Message* shall identify the transmit power level of the  
15      power control subchannels to the transmit power level of 20 ms frames at a 9600  
16      bps or 14400 bps rate on their respective associated channels (Forward  
17      Fundamental Channel or Forward Dedicated Control Channel).
- 18      • For CDMA-to-CDMA handoffs, the base station may specify Power Control  
19      Subchannel Gain action time [PC\_ACTION\_TIME]. If PC\_ACTION\_TIME is included  
20      in this message, the base station shall apply the new FPC\_SUBCHAN\_GAIN at the  
21      time specified by PC\_ACTION\_TIME. If the PC\_ACTION\_TIME is not included in this  
22      message but the explicit action time is included, the base station shall apply the  
23      new FPC\_SUBCHAN\_GAIN at the action time of the *Universal Handoff Direction  
Message*. If the implicit action time is used, the base station should gradually apply  
24      any change in FPC\_SUBCHAN\_GAIN.
- 25      • A *Universal Handoff Direction Message* may change the code channel associated with  
26      an Active Set pilot that remains in the new Active Set.
- 27      • A *Universal Handoff Direction Message* may delete the code channel associated with  
28      an Active Set pilot that remains in the new Active Set.
- 29      • A *Universal Handoff Direction Message* may add the code channel associated with an  
30      Active Set pilot that remains in the new Active Set.
- 31      • The base station specifies the long code mask to be used on the new Forward Traffic  
32      Channel by using the PRIVATE\_LCM field of the *Universal Handoff Direction  
Message*. The base station may change the contents of this field only for CDMA-to-  
33      CDMA hard handoffs. If a change of long code mask is specified and the base  
34      station does not specify an explicit action time in the *Universal Handoff Direction  
Message*, the base station shall begin using the new long code mask on the first 80  
35      ms boundary (relative to System Time) occurring at least 80 ms after the end of the  
36      frame containing the last bit of the message.
- 37      • The base station specifies the long code mask to be used on the new Forward Traffic  
38      Channel by using the PRIVATE\_LCM field of the *Universal Handoff Direction  
Message*. The base station may change the contents of this field only for CDMA-to-  
39      CDMA hard handoffs. If a change of long code mask is specified and the base  
station does not specify an explicit action time in the *Universal Handoff Direction  
Message*, the base station shall begin using the new long code mask on the first 80 ms  
boundary (relative to System Time) occurring at least 80 ms after the end of the  
frame containing the last bit of the message.

- 1     • For CDMA-to-CDMA handoffs, the base station may require the mobile station to  
 2       perform a reset of the acknowledgment procedures by using the RESET\_L2 field of  
 3       the *Universal Handoff Direction Message*. If the base station requires the mobile  
 4       station to reset the acknowledgment procedures, Layer 3 shall send an indication to  
 5       Layer 2 to reset the acknowledgment procedures (see 3.2.1.1 and 3.2.2.1 of [4]). The  
 6       acknowledgment procedures of the base station that the mobile station is to handoff  
 7       to shall be reset immediately after the action time of the *General Handoff Direction  
 8       Message*.
- 9     • For CDMA-to-CDMA hard handoffs, the base station may alter the frame offset by  
 10      setting the FRAME\_OFFSET field to a new value. If the base station specifies a new  
 11      frame offset and does not specify an explicit action time, the base station shall  
 12      change its Forward and Reverse Traffic Channel frame offsets at the second 80 ms  
 13      boundary (relative to System Time) after the end of transmission of the *Universal  
 14      Handoff Direction Message*, unless the end of transmission of the message coincides  
 15      with an 80 ms boundary, in which case the change in frame offsets shall occur 80  
 16      ms after the end of transmission.
- 17     • For CDMA-to-CDMA hard handoffs to Band Class 0 or Band Class 3, the base  
 18      station may alter the nominal transmit power offset after handoff by setting the  
 19      NOM\_PWR field to the new nominal transmit power offset. For CDMA-to-CDMA  
 20      hard handoffs to band classes other than Band Class 0 and Band Class 3, the base  
 21      station may alter the nominal transmit power offset after handoff by setting both the  
 22      NOM\_PWR and NOM\_PWR\_EXT fields to the new nominal transmit power offset.
- 23     • The base station may specify a different band class by setting the BAND\_CLASS and  
 24      CDMA\_FREQ fields to the band class and CDMA frequency assignment respectively.  
 25      The base station shall not specify a band class not supported by the mobile station.
- 26     • If the base station sends the *Universal Handoff Direction Message* in assured mode,  
 27      the base station should set the action time of the message such that there is  
 28      sufficient time for the mobile station to transmit a message containing the  
 29      acknowledgment prior to the action time.
- 30     • For CDMA-to-CDMA handoffs, the base station may specify whether the mobile  
 31      station is to use service negotiation or service option negotiation by setting the  
 32      SERV\_NEG\_TYPE field of the *Universal Handoff Direction Message*. If the base  
 33      station specifies that the mobile station is to use service negotiation, the base  
 34      station shall set the SERV\_NEG variable (see 3.6.4.1.2.1.4) to enabled at the action  
 35      time of message. If the base station specifies that the mobile station is to use  
 36      service option negotiation, the base station shall set SERV\_NEG to disabled at the  
 37      action time of the message.

- The base station may specify whether the mobile station is to restore its configuration to what it was before the handoff attempt, if it fails in the handoff attempt using criteria specified in the *Candidate Frequency Search Request Message*, by using the RETURN\_IF\_HANDOFF\_FAIL field of the *Universal Handoff Direction Message*. The base station may specify whether the mobile station is to periodically search a CDMA Candidate Frequency for useable pilots, using criteria specified in the *Candidate Frequency Search Request Message*, by using the PERIODIC\_SEARCH field of the *Universal Handoff Direction Message*.
- The base station specifies Active Set for the Fundamental Channel only, the Dedicated Control Channel only, or both. The Active Set of the Dedicated Control Channel shall be the same as the Active Set of the Fundamental Channel when both the Fundamental Channel and Dedicated Control Channel are assigned.
- The base station may specify the Active Set of the Supplemental Channels. The Active Set of the Supplemental Channels shall be a subset of the Active Set of the Fundamental Channel or the Dedicated Control Channel.
- A *Universal Handoff Direction Message* may specify a Reverse Supplemental Channel assignment. If Reverse Supplemental Channel assignment information is included, this message contains information that specifies the start time, duration, and the data transfer rate associated with this Reverse Supplemental Channel assignment.
- A *Universal Handoff Direction Message* may specify a Forward Supplemental Channel assignment. If Forward Supplemental Channel assignment information is included, this message contains the start time, duration, and SCCL\_INDEX associated with this Forward Supplemental Channel assignment.
- A *Universal Handoff Direction Message* may update the mapping between a particular SCCL\_INDEX and a set of fields that specifies the data transfer rate, QOF index, Forward Supplemental Channel Walsh code for each PILOT\_PN, and the active set for the Forward Supplemental Channel associated with FOR\_SCH\_ID.
- A *Universal Handoff Direction Message* may update REV\_WALSH\_ID field which specifies the Reverse Supplemental Walsh cover.
- The base station may set CLEAR\_RETRY\_DELAY to '1' to indicate that the mobile station is to cancel any previously stored retry delay. Otherwise, the base station shall set CLEAR\_RETRY\_DELAY to '0' to indicate that the mobile station is to continue to honor any previously stored retry delay (see 2.6.6.2.5.1).

#### 3.6.6.2.12 Processing of Extended Supplemental Channel Assignment Message

The base station may use this message to carry Forward Supplemental Channel assignment information or Reverse Supplemental Channel assignment information.

If Forward Supplemental Channel assignment information is included, this message contains the start time, duration, and SCCL\_INDEX associated with this Forward Supplemental Channel assignment. If Reverse Supplemental Channel assignment information is included, this message contains information that specifies the start time, duration, and the number of information bits per frame (or set of number of bits per frame

1 if RSCH\_VAR\_TABLE\_ID<sub>S</sub>[REV\_SCH\_ID<sub>R</sub>] is not equal to '000' associated with this Reverse  
 2 Supplemental Channel assignment.

3 This message may specify the mapping between a particular SCCL\_INDEX and a set of  
 4 fields that specifies the number of information bits per frame (or set of number of bits per  
 5 frame if FSCH\_VAR\_TABLE\_ID<sub>S</sub>[FOR\_SCH\_ID<sub>R</sub>] is not equal to '000'), QOF index, Forward  
 6 Supplemental Channel Walsh code for each PILOT\_PN, and the active set for the Forward  
 7 Supplemental Channel associated with FOR\_SCH\_ID.

8 This message may also include REV\_WALSH\_ID field which specifies the Reverse  
 9 Supplemental Walsh cover.

10 This message also includes START\_TIME\_UNIT for this message, *Forward Supplemental*  
 11 *Channel Assignment Mini Messages*, or *Reverse Supplemental Channel Assignment Mini*  
 12 *Messages*, or *Universal Handoff Direction Message*.

13 The base station shall set the contents of an *Extended Supplemental Channel Assignment*  
 14 *Message* according to the following rules:

- 15 • An *Extended Supplemental Channel Assignment Message* may specify a Reverse  
 16 Supplemental Channel assignment. The base station shall set NUM\_REV\_SCH to  
 17 the number of Reverse Supplemental Channels to be assigned.
- 18 • An *Extended Supplemental Channel Assignment Message* may specify a Forward  
 19 Supplemental Channel assignment. The base station shall set NUM\_FOR\_SCH to  
 20 the number of Forward Supplemental Channels to be assigned..
- 21 • The base station shall set the START\_TIME\_UNIT field to indicate the unit of the  
 22 FOR\_SCH\_START\_TIME included in this message and the *Forward Supplemental*  
 23 *Channel Assignment Mini Messages* and REV\_SCH\_START\_TIME included in this  
 24 message and the *Reverse Supplemental Channel Assignment Mini Messages*. The  
 25 base station shall set this field to one less than the number of 20 ms intervals that  
 26 is to be used by the mobile station for calculating the start time included in Forward  
 27 Supplemental Channel assignments or Reverse Supplemental Channel assignments.
- 28 • An *Extended Supplemental Channel Assignment Message* may specify Forward  
 29 Supplemental Channel configuration information. The base station shall set  
 30 NUM\_FOR\_SCH\_CFG to the number of Forward Supplemental Channel to be  
 31 configured.
- 32 • The base station shall set the NUM\_REC field to the number of instances of the  
 33 following record minus one included in this message. The base station shall set the  
 34 fields within each record as follows:
  - 35 – The base station shall set the SCCL\_INDEX field to the index of the  
 36 Supplemental Channel Code Information Record in the Supplemental  
 37 Channel Code List Table.
  - 38 – The base station shall set the FOR\_SCH\_NUM\_BITS\_IDX field to the Forward  
 39 Supplemental Channel number of information bits index associated with  
 40 SCCL\_INDEX.

- 1           – The base station shall set the NUM\_SUP\_SHO field to the number of Forward  
 2           Supplemental Channels minus one, corresponding to the FOR\_SCH\_ID and  
 3           the SCCL\_INDEX, for which the frames are to be soft-combined by the  
 4           mobile station. The base station shall set the fields within each record as  
 5           follows:
- 6           + The base station shall set the PILOT\_PN field to the pilot PN sequence  
 7           offset for this pilot in units of 64 PN chips.
- 8           + The base station shall set the QOF\_MASK\_ID\_SCH field to the ID of the  
 9           Quasi Orthogonal Function mask ID corresponding to the Forward  
 10          Supplemental Channel Code index.
- 11          + The base station shall set the CODE\_CHAN\_SCH field to the code  
 12          channel on the Supplemental Channel corresponding to the PILOT\_PN.
- 13         • REV\_SCH\_DTX\_DURATION: The base station shall set REV\_SCH\_DTX\_DURATION to  
 14           the maximum duration of time in units of 20 ms that the mobile station is allowed  
 15           to stop transmission on a Reverse Supplemental Channel before resuming  
 16           transmission on the Reverse Supplemental Channel within the reverse assignment  
 17           duration. The base station shall set this field to ‘0000’ if the mobile station is to  
 18           stop using a Reverse Supplemental Channel once it has stopped transmitting on  
 19           that Reverse Supplemental Channel. The base station shall set this field to ‘1111’ if  
 20           the mobile station is allowed to resume transmission on a Reverse Supplemental  
 21           Channel at any time within the reverse assignment duration.
- 22         • The base station may set USE\_T\_ADD\_ABORT, the Reverse Supplemental Channel  
 23           assignment T\_ADD abort indicator, to ‘1’ to indicate that the mobile station is to  
 24           abort Reverse Supplemental Channel assignments when a T\_ADD trigger occurs.  
 25           Otherwise, the base station shall set USE\_T\_ADD\_ABORT to ‘0’.
- 26         • If the base station is sending this message in response to a *Supplemental Channel*  
 27           *Request Message* which includes a *Supplemental Channel Request Message* sequence  
 28           number and the mobile station is to clear the IGNORE\_ESCAM field, the base  
 29           station shall set USE\_SCRM\_SEQ\_NUM to ‘1’ and set SCRM\_SEQ\_NUM to the  
 30           sequence number corresponding to the SCRM\_SEQ\_NUM field in a *Supplemental*  
 31           *Channel Request Message* to which the mobile station is to match this message.  
 32           Otherwise, the base station shall set USE\_SCRM\_SEQ\_NUM to ‘0’ and omit  
 33           SCRM\_SEQ\_NUM.

### 34         3.6.6.2.2.13 Processing of Forward Supplemental Channel Assignment Mini Message

35         The base station may use this message to specify Forward Supplemental Channel  
 36           assignment parameters for the mobile station’s Forward Supplemental Channel. This  
 37           information includes the FOR\_SCH\_ID, duration, start time, and the index to the previously  
 38           specified Forward Supplemental Channel Code List, which determines number of  
 39           information bits per frame (or set of number of bits per frame if  
 40           FSCH\_VAR\_TABLE\_ID<sub>S</sub>[FOR\_SCH\_ID<sub>R</sub>] is not equal to ‘000’), code channel index, and the  
 41           identifier of the Quasi Orthogonal Function corresponding to the assignment.

1 The base station shall set the content of a *Forward Supplemental Channel Assignment Mini*  
 2 *Message* according to the following rules:

- 3 • The base station shall set the FOR\_SCH\_ID to Forward Supplemental Channel  
 4 identifier of the burst assignment that this message carries.
- 5 • The base station shall set the FOR\_SCH\_DURATION field to '0000' to indicate that  
 6 the mobile station should stop processing the Forward Supplemental Channel  
 7 starting at the explicit start time of the message specified by  
 8 FOR\_SCH\_START\_TIME. The base station shall set the FOR\_SCH\_DURATION field  
 9 to '1111' to indicate that the mobile station should process the Forward  
 10 Supplemental Channel, starting at the explicit start time of the message specified by  
 11 FOR\_SCH\_START\_TIME, until a subsequent *Forward Supplemental Channel*  
 12 *Assignment Mini Message* or an *Extended Supplemental Channel Assignment*  
 13 *Message* with the same FOR\_SCH\_ID field is received. The base station shall set the  
 14 FOR\_SCH\_DURATION field to the duration in units of 20 ms (see Table 3.7.3.3.2.37-  
 15 3), starting at the explicit start time of the message specified by  
 16 FOR\_SCH\_START\_TIME, during which the mobile station is to process the Forward  
 17 Supplemental Channel.
- 18 • The base station shall set the FOR\_SCH\_START\_TIME field to the System Time, in  
 19 units of time specified by START\_TIME\_UNIT, (modulo 32) at which the mobile  
 20 station is to start processing the Forward Supplemental Channel specified in this  
 21 message. The explicit start time for processing Forward Supplemental Channels is  
 22 the time for which:

$$(\lfloor t / (\text{START\_TIME\_UNIT} + 1) \rfloor - \text{FOR\_SCH\_START\_TIME}) \bmod 32 = 0,$$

24 where t is the System Time in units of 20 ms.

- 25 • The base station shall set the SCCL\_INDEX field to the index of the record in the  
 26 Forward Supplemental Channel Code list corresponding to the FOR\_SCH\_ID.
- 27 • If the PILOT\_GATING\_USE\_RATE to equal to '1', the base station shall set  
 28 PILOT\_GATING\_USE\_RATE to '0' and start transmitting the Forward Power Control  
 29 Subchannel with the maximum rate at the action time of the message.

### 30 3.6.6.2.14 Processing of Reverse Supplemental Channel Assignment Mini Message

31 The base station may use this message to specify Reverse Supplemental Channel  
 32 assignment parameters for the mobile station Reverse Supplemental Channel. This  
 33 information includes the reverse supplemental channel identifier (REV\_SCH\_ID), the  
 34 duration of transmission on the Reverse Supplemental Channel, the start time for the burst  
 35 assignment, and the number of information bits per frame that the mobile station may  
 36 transmit.

37 The base station shall set the content of the *Reverse Supplemental Channel Assignment Mini*  
 38 *Message* according to the following rules:

- 1     • The base station shall set the REV\_SCH\_DURATION field to '0000' to indicate that  
2       the mobile station should stop transmitting on the Reverse Supplemental Channel  
3       specified by REV\_SCH\_ID at the start time specified by REV\_SCH\_START\_TIME.  
4       The base station shall set this field to '1111' to indicate that the mobile station may  
5       transmit on the Reverse Supplemental Channel specified by REV\_SCH\_ID, starting  
6       at the start time specified by REV\_SCH\_START\_TIME. The base station shall set the  
7       REV\_SCH\_DURATION field to the allocated duration (see Table 3.7.3.3.2.37-3),  
8       starting at the start time specified by REV\_SCH\_START\_TIME, during which the  
9       mobile station may transmit on the Reverse Supplemental Channel specified by  
10      REV\_SCH\_ID.
- 11    • The base station shall set the REV\_SCH\_START\_TIME field to the System Time, in  
12      units of time specified by START\_TIME\_UNIT, (modulo 32) at which the mobile  
13      station may start transmitting on the Reverse Supplemental Channel specified in  
14      this message. The explicit start time for transmitting on the Reverse Supplemental  
15      Channel is the time for which:

$$( \lfloor t / (\text{START\_TIME\_UNIT} + 1) \rfloor - \text{REV\_SCH\_START\_TIME} ) \bmod 32 = 0,$$

17    where  $t$  is the System Time in units of 20 ms.

- 18    • The base shall set the REV\_SCH\_BITS\_IDX (see Table 3.7.3.3.2.37-[24](#)) to indicate  
19      the Reverse Supplemental Channel number of information bits per frame index.
- 20    • If the PILOT\_GATING\_USE\_RATE to equal to '1', the base station shall set  
21      PILOT\_GATING\_USE\_RATE to '0' and start transmitting the Forward Power Control  
22      Subchannel with the maximum rate at the action time of the message.

### 23    3.6.6.2.2.15 Processing of the Mobile Assisted Burst Operation Parameters Message

24    The base station may use this message to specify the operating parameters in the mobile  
25    station for Mobile Assisted Burst Operation procedures.

- 26    • A *Mobile Assisted Burst Operation Parameters Message* may specify pilot strength  
27      order change reporting information. If order change reporting information is  
28      included, the base station shall set ORDER\_FLAG to '1' and include the appropriate  
29      order change reporting fields. Otherwise, the base station shall set ORDER\_FLAG to  
30      '0'. If ORDER\_FLAG is set to '1', the base station shall perform the following  
31      procedures:
  - 32       – The base station shall set PS\_MIN\_DELTA to one less than the minimum pilot  
33          strength measurement difference between any two pilots in the Active Set (in  
34          units of 0.5 dB) that must be measured in order for the mobile station to send a  
35          *Pilot Strength Measurement Mini Message*.
  - 36       – The base station shall set ORDER\_INTERVAL to the minimum interval (in 20 ms  
37          units) during which the indicated pilot strength measurement difference (greater  
38          than or equal to PS\_MIN\_DELTA + 1, in units of 0.5 dB) must be measured by  
39          the mobile station in order for the mobile station to send a *Pilot Strength*  
40          *Measurement Mini Message*.

- A *Mobile Assisted Burst Operation Parameters Message* may specify periodic pilot strength reporting. If periodic reporting information is included, the base station shall set PERIODIC\_FLAG to '1' and include the appropriate periodic reporting fields. Otherwise, the base station shall set PERIODIC\_FLAG to '0'. If PERIODIC\_FLAG is set to '1', the base station shall perform the following procedures:
  - The base station shall set NUM\_PILOTS to the number of pilots for which the mobile station is to send *Pilot Strength Measurement Mini Messages*.
  - The base station shall set PERIODIC\_INTERVAL to the interval (in 20 ms units) between *Pilot Strength Measurement Mini Messages*.
- A *Mobile Assisted Burst Operation Parameters Message* may specify threshold based pilot strength reporting. If threshold based reporting information is included, the base station shall set THRESHOLD\_FLAG to '1' and include the appropriate threshold based reporting fields. Otherwise, the base station shall set THRESHOLD\_FLAG to '0'. If THRESHOLD\_FLAG is set to '1', the base station shall perform the following procedures:
  - The base station shall set PS\_FLOOR\_HIGH to the high water mark for lower limit threshold for which the mobile station is to send *Pilot Strength Measurement Mini Messages*.
  - The base station shall set PS\_FLOOR\_LOW to the low water mark for lower limit threshold for which the mobile station is to send *Pilot Strength Measurement Mini Messages*.
  - The base station shall set PS\_CEILING\_HIGH to the high water mark for upper limit threshold for which the mobile station is to send *Pilot Strength Measurement Mini Messages*.
  - The base station shall set PS\_CEILING\_LOW to the low water mark for upper limit threshold for which the mobile station is to send *Pilot Strength Measurement Mini Messages*.
  - The base station shall set THRESHOLD\_INTERVAL to the interval (in 20 ms units) between *Pilot Strength Measurement Mini Messages*.

### 3.6.6.2.3 Active Set Maintenance

The base station shall maintain an Active Set for each mobile station under its control as follows:

- When the base station sends the *Channel Assignment Message*, it shall initialize the Active Set to contain only the pilot associated with the assigned Forward Traffic Channel.
- When the base station sends the *Extended Channel Assignment Message*, it shall initialize the Active Set to contain all pilots included in the message.

- When the base station sends an *Extended Handoff Direction Message*, *General Handoff Direction Message*, or *Universal Handoff Direction Message*, it shall add to the Active Set, before the action time of the message, all pilots included in the message, if they are not already in the Active Set.
- The base station shall delete the pilots that were not included in the most recent *Extended Handoff Direction Message*, *General Handoff Direction Message*, or *Universal Handoff Direction Message*, from the Active Set upon receipt of the *Handoff Completion Message* or *Extended Handoff Completion Message*.

#### 3.6.6.2.4 Soft Handoff

The base station should use soft handoff when directing a mobile station from one Forward Traffic Channel to another Forward Traffic Channel having the same frequency assignment.

##### 3.6.6.2.4.1 Receiving During Soft Handoff

Each base station in the Active Set shall demodulate the Reverse Traffic Channel. The base station should provide diversity combining of the demodulated signals obtained by each base station in the Active Set.

##### 3.6.6.2.4.2 Transmitting During Soft Handoff

The base station shall begin transmitting identical modulation symbols on all Forward Traffic Channels specified in an *Extended Handoff Direction Message* or *General Handoff Direction Message*, or *Universal Handoff Direction Message* (with the possible exception of the power control subchannel) by the action time of the message.

The base station shall transmit identical power control bits on all identical power control subchannels that were identified as such in the last *Extended Handoff Direction Message*, or *General Handoff Direction Message*, or *Universal Handoff Direction Message*.

The base station shall use the same long code mask on all Forward Traffic Channels whose associated pilots are in the Active Set.

#### 3.6.6.2.5 CDMA-to-Analog Hard Handoff

The base station may direct the mobile station to perform a handoff from the CDMA system to an analog system in a band class that the mobile station supports by sending an *Analog Handoff Direction Message*.

### 3.6.7 CDMA Tiered Services

#### 3.6.7.1 Overview

##### 3.6.7.1.1 Definition

The base station may support Tiered Services to provide individual users or groups of users with custom services and special features based upon their location. The base station may also support Tiered Services to provide private network support. Important to the operation of CDMA Tiered Services is the concept of User Zones. It is via User Zones by which the base station offers custom services based upon the mobile station location.

User Zones are associated with a set of features and services, plus a geographic area in which the User Zone features/services are made available to the customers that have subscribed to that User Zone. The boundary of the User Zone Geographic area may be established based on the coverage area of a public or private base station, or it may be established independent of RF topology.

User Zones may be supported by the public system on the same frequency as the serving base station, or they may be supported on a private system operating on a different frequency.

### 3.6.7.1.2 Types of User Zones

User Zones may be of two basic types:

- *Broadcast User Zones*: Broadcast User Zones are identified to the mobile station using the Paging Channel or the Primary Broadcast Control Channel. In this case, the base station broadcasts messages on the Paging Channel or the Primary Broadcast Control Channel identifying the User Zones that fall within the coverage area of the particular cell/sector. A mobile station, as part of its monitoring of the Paging Channel or the Primary Broadcast Control Channel, will identify the presence of a particular User Zone.
- *Mobile Specific User Zones*: Mobile Specific User Zones are not broadcast by the base station. A mobile station may use other overhead message parameters and compare them with internally stored User Zone parameters to identify the presence of a particular User Zone. These parameters may include: SID, NID, BASE\_ID, BASE\_LAT, and BASE\_LONG.

### 3.6.7.2 Requirements

If the base station supports CDMA Tiered Services, the base station sends the following messages to assist the mobile station in identifying the presence of User Zones and to validate the User Zone requested by a mobile station:

- *User Zone Identification Message*
- *Private Neighbor List Message*
- *User Zone Reject Message*
- *User Zone Update Message*

#### 3.6.7.2.1 User Zone Identification Message

The base station identifies Broadcast User Zones supported by the base station by sending the *User Zone Identification Message* on the Paging Channel or the Primary Broadcast Control Channel. The base station should list the UZID of each Broadcast User Zone supported by the base station.

#### 3.6.7.2.2 Private Neighbor List Message

The base station sends a Private Neighbor List and identifies the User Zones supported by

1 its private neighbor base stations by sending the *Private Neighbor List Message* on the  
 2 Paging Channel or the Primary Broadcast Control Channel. The *Private Neighbor List*  
 3 *Message* shall list no more than N<sub>8m</sub> private neighbors.

4 3.6.7.2.3 User Zone Update Message and User Zone Reject Message on f-dsch

5 For a mobile station operating in the *Traffic Channel Substate* or *Release Substate* of the  
 6 *Mobile Station Control on the Traffic Channel State*, the base station may update the User  
 7 Zone associated with the mobile station by sending a *User Zone Update Message*. The base  
 8 station may also send a *User Zone Reject Message* to reject the User Zone requested by the  
 9 mobile station in the *Origination Message*, *Page Response Message*, or *User Zone Update*  
 10 *Request Message*. The base station may include the ASSIGN\_UZID field in the *User Zone*  
 11 *Reject Message* to assign a User Zone to the mobile station to replace the rejected User  
 12 Zone.

13 3.6.7.2.4 User Zone Reject Message on f-csch

14 The base station may send the *User Zone Reject Message* on the Paging Channel or the  
 15 Forward Common Control Channel to reject the User Zone requested by the mobile station  
 16 in the *Registration Message*, *Origination Message*, or *Page Response Message*. The base  
 17 station may include the ASSIGN\_UZID field in the *User Zone Reject Message* record to  
 18 assign a User Zone to the mobile station to replace the rejected User Zone.

19 3.6.8 Call Control Processing

20 The Call Control consists of the following states:

- 21 • *Waiting for Order Substate* - In this substate, the Call Control instance sends the  
 22 *Alert With Information Message* or the *Extended Alert With Information Message* to the  
 23 mobile station.
- 24 • *Waiting for Answer Substate* - In this substate, the Call Control instance waits for  
 25 the *Connect Order* from the mobile station.
- 26 • *Conversation Substate* - In this substate, the parties involved in this call exchanges  
 27 Traffic Channel frames in accordance with the current service configuration.
- 28 • *Call Release Substate* - In this substate, the Call Control instance waits for the call  
 29 to be disconnected.

30 The following messages are processed by the Call Control:

- 31 • *Alert With Information Message*
- 32 • *Extended Alert with Information Message*:
- 33 • *Flash With Information Message*
- 34 • *Extended Flash With Information Message*

- 1     • *Send Burst DTMF Message*
- 2     • *Origination Continuation Message*

3     The following orders are processed by the Call Control:

- 4     • *Continuous DTMF Tone Order*
- 5     • *Maintenance Order*
- 6     • *Connect Order*

7     Upon instantiation, the Call Control instance shall perform the following:

- 8       • If the call is a mobile station terminated call and the base station set  
9        BYPASS\_ALERT\_ANSWER to ‘1’, the Call Control instance shall enter the  
10      *Conversation Substate* (see 3.6.8.2). If the call is a mobile station terminated call  
11      and the base station set BYPASS\_ALERT\_ANSWER to ‘0’, the Call Control instance  
12      shall enter the *Waiting for Order Substate* (see 3.6.8.1.1).
- 13       • If the call is a mobile-station-originated call, the Call Control instance shall enter  
14       the *Conversation Substate* (see 3.6.8.2).

### 15     3.6.8.1 Alerting

#### 16     3.6.8.1.1 Waiting for Order Substate

17     In this substate, the Call Control instance sends an *Alert With Information Message* or an  
18     *Extended Alert With Information Message* to the mobile station.

19     While in the *Waiting for Order Substate*, the Call Control instance shall perform the  
20     following:

- 21       • If the Call Control instance receives a “release indication” from the [layer 3](#)[Layer 3](#),  
22       the Call Control instance shall enter the *Call Release Substate*.
- 23       • If the Call Control instance receives a “send alert with info message indication” from  
24       the [layer 3](#)[Layer 3](#), the Call Control instance shall send an *Alert with Information*  
25       *Message* or an *Extended Alert With Information Message* to the mobile station within  
26       T2b seconds, and enter the *Waiting for Answer Substate*.
- 27       • The Call Control instance may send the following messages:
  - 28           1. *Alert With Information Message*: The Call Control instance shall enter the  
29           *Waiting for Answer Substate*.
  - 30           2. *Extended Alert With Information Message*: The Call Control instance shall enter  
31           the *Waiting for Answer Substate*.

- 1       3. *Maintenance Order*: The Call Control instance shall enter the *Waiting for Answer*  
 2       *Substate*.

3       3.6.8.1.2 Waiting for Answer Substate

4       In this substate, the Call Control instance waits for a *Connect Order* from the mobile  
 5       station.

6       While in the *Waiting for Answer Substate*, the Call Control instance shall perform the  
 7       following:

- 8       • If the Call Control instance receives a “release indication” from the [layer 3Layer 3](#),  
  9       the Call Control instance shall enter the *Call Release Substate*.
- 10      • If the Call Control instance receives a “send alert with info message indication” from  
  11     the [layer 3Layer 3](#), the Call Control instance shall send an *Alert with Information*  
  12     *Message* or an *Extended Alert with Information Message* to the mobile station, within  
  13     T2b seconds, and enter the *Waiting for Answer Substate*.
- 14      • The Call Control instance may send the following messages:
  - 15       1. *Alert With Information Message*
  - 16       2. *Extended Alert With Information Message*
  - 17       3. *Maintenance Order*
- 18      • If the Call Control instance receives one of the following messages from the [layer](#)  
  19     [3Layer 3](#), the Call Control instance shall process the message according to the  
  20     specified requirements, if any:
  - 21       1. *Connect Order*: The Call Control instance shall enter the *Conversation Substate*.
  - 22       2. *Flash With Information Message*: If the message contains a Keypad Facility  
  23       record with feature codes indicating User Selective Call Forwarding with a pre-  
  24       registered number, a stored number, or voice mail, the Call Control instance  
  25       may send a ‘call release request’ to the [layer 3Layer 3](#). [If this message contains](#)  
  26       [the Global Emergency Call information record and the call associated with this](#)  
  27       [Call Control instance is a voice call, the base station shall recognize this as an](#)  
  28       [emergency call and should process the message using an implementation-](#)  
  29       [dependent procedure which may include ignoring the dialed digits. If this](#)  
  30       [message contains the Global Emergency Call information record and the call](#)  
  31       [associated with this Call Control instance is not a voice call, the base station](#)  
  32       [may recognize this as an emergency call and should process the message using](#)  
  33       [an implementation-dependent procedure which may include ignoring the dialed](#)  
  34       [digits.](#)

1       3. *Extended Flash With Information Message:* If the message contains a Keypad  
 2 Facility record with feature codes indicating User Selective Call Forwarding with  
 3 a pre-registered number, a stored number, or voice mail, the Call Control  
 4 instance may send a ‘call release request’ to the layer 3Layer 3. If this message  
 5 contains the Global Emergency Call information record and the call associated  
 6 with this Call Control instance is a voice call, the base station shall recognize  
 7 this as an emergency call and should process the message using an  
 8 implementation-dependent procedure which may include ignoring the dialed  
 9 digits. If this message contains the Global Emergency Call information record  
 10 and the call associated with this Call Control instance is not a voice call, the  
 11 base station may recognize this as an emergency call and should process the  
 12 message using an implementation-dependent procedure which may include  
 13 ignoring the dialed digits.

14      4. *Origination Continuation Message*

15      3.6.8.2 Conversation Substate

16      While in the *Conversation Substate*, the Call Control instance shall perform the following:

- 17       • If the Call Control instance receives a “release indication” from the layer 3Layer 3,  
 18       the Call Control instance shall enter the *Call Release Substate*.
- 19       • If the Call Control instance receives a “paca reorig indication” from the layer 3Layer  
 20       3, the Call Control instance should send either an *Alert With Information*  
 21       *Message/ Extended Alert With Information Message* which contains a signal  
 22       information record with the SIGNAL\_TYPE field set to ‘01’ or ‘10’, or an *Alert With*  
 23       *Information Message/ Extended Alert With Information Message* which does not  
 24       contain a signal information record.
- 25       • If the Call Control instance receives a “send alert with info message indication” from  
 26       layer 3Layer 3, the Call Control instance shall send an *Alert with Information*  
 27       *Message* or an *Extended Alert With Information Message* to the mobile station within  
 28       T2b seconds, and enter the *Waiting for Answer Substate*.
- 29       • The Call Control instance may send the following messages:
  - 30           1. *Alert With Information Message:* If the message contains a signal information  
 31           record with the SIGNAL\_TYPE field set to ‘01’ or ‘10’, or if the message does not  
 32           contain a signal information record, the Call Control instance shall enter the  
 33           *Waiting for Answer Substate*.
  - 34           2. *Extended Alert With Information Message:* If the message contains a signal  
 35           information record with the SIGNAL\_TYPE field set to ‘01’ or ‘10’, or if the  
 36           message does not contain a signal information record, the Call Control instance  
 37           shall enter the *Waiting for Answer Substate*.

- 1       3. *Continuous DTMF Tone Order*
- 2       4. *Flash With Information Message*
- 3       5. *Extended Flash With Information Message*
- 4       6. *Maintenance Order:* The Call Control instance shall enter the *Waiting for Answer Substate*.
- 5       7. *Send Burst DTMF Message*

- 7       • If the Call Control instance receives one of the following messages from Layer 3Layer 3, the Call Control instance shall process the message according to the specified requirements, if any:
  - 10      1. *Continuous DTMF Tone Order*
  - 11      2. *Flash With Information Message:* If this message contains the Global Emergency Call information record and the call associated with this Call Control instance is a voice call, the base station shall recognize this as an emergency call and should process the message using an implementation-dependent procedure which may include ignoring the dialed digits. If this message contains the Global Emergency Call information record and the call associated with this Call Control instance is not a voice call, the base station may recognize this as an emergency call and should process the message using an implementation-dependent procedure which may include ignoring the dialed digits.
  - 12      3. *Extended Flash With Information Message:* If this message contains the Global Emergency Call information record and the call associated with this Call Control instance is a voice call, the base station shall recognize this as an emergency call and should process the message using an implementation-dependent procedure which may include ignoring the dialed digits. If this message contains the Global Emergency Call information record and the call associated with this Call Control instance is not a voice call, the base station may recognize this as an emergency call and should process the message using an implementation-dependent procedure which may include ignoring the dialed digits.
  - 13      4. *Origination Continuation Message*
  - 14      5. *Send Burst DTMF Message*

### 31       3.6.8.3 Call Release Substate

- 32      • The Call Control instance may send the following messages:
  - 33       1. *Alert With Information Message:* If the message contains a signal information record with the SIGNAL\_TYPE field set to '01' or '10', or if the message does not

1 contain a signal information record, the base station shall enter the *Waiting for*  
 2 *Answer Substate*.

- 3     2. *Extended Alert With Information Message*: If the message contains a signal  
 4 information record with the SIGNAL\_TYPE field set to '01' or '10', or if the  
 5 message does not contain a signal information record, the base station shall  
 6 enter the *Waiting for Answer Substate*.
- 7     3. *Maintenance Order*: The Call Control instance shall enter the *Waiting for Answer*  
 8 *Substate*.
- 9     • If the Call Control instance receives one of the following messages from layer 3Layer  
 10 3, the Call Control instance shall process the message according to the specified  
 11 requirements, if any:
  - 12       1. *Connect Order*
  - 13       2. *Continuous DTMF Tone Order*
  - 14       3. *Flash With Information Message*: If this message contains the Global Emergency  
Call information record and the call associated with this Call Control instance is  
a voice call, the base station shall recognize this as an emergency call and  
should process the message using an implementation-dependent procedure  
which may include ignoring the dialed digits. If this message contains the Global  
Emergency Call information record and the call associated with this Call Control  
instance is not a voice call, the base station may recognize this as an emergency  
call and should process the message using an implementation-dependent  
procedure which may include ignoring the dialed digits.
  - 15       4. *Extended Flash With Information Message*: If this message contains the Global  
Emergency Call information record and the call associated with this Call Control  
instance is a voice call, the base station shall recognize this as an emergency call  
and should process the message using an implementation-dependent procedure  
which may include ignoring the dialed digits. If this message contains the Global  
Emergency Call information record and the call associated with this Call Control  
instance is not a voice call, the base station may recognize this as an emergency  
call and should process the message using an implementation-dependent  
procedure which may include ignoring the dialed digits.
  - 16       5. *Origination Continuation Message*
  - 17       6. *Send Burst DTMF Message*

1 No text.

1    **3.7 PDU Formats for Messages**

2    The following sections specify the requirements on the PDU formats transmitted on the f—  
3    csch, and the f-dsch.

4    In any multi-bit field in the following messages, the most significant bit (MSB) shall be  
5    transmitted first.

6    3.7.1 Reserved

7    3.7.2 f-csch

8    The f-csch is used to send control information to mobile stations that have not been  
9    assigned to a Traffic Channel.

10   3.7.2.1 Reserved

11   3.7.2.2 Reserved

- 1    3.7.2.3 PDU Formats for Messages on the f-csch
- 2    The messages sent on the f-csch are summarized in Table 3.7.2.3-1.

3

1

**Table 3.7.2.3-1. f-csch Messages (Part 1 of 2)**

| <b>Message Name</b>                                                          | <b>MSG_TAG</b> | <b>Section Number</b> | <b>Primary BCCH</b> | <b>F-CCCH</b> | <b>PCH</b> |
|------------------------------------------------------------------------------|----------------|-----------------------|---------------------|---------------|------------|
| <i>System Parameters Message</i>                                             | SPM            | 3.7.2.3.2.1           | N                   | N             | Y          |
| <i>Access Parameters Message</i>                                             | APM            | 3.7.2.3.2.2           | N                   | N             | Y          |
| <i>Neighbor List Message (Band Class 0 only)</i>                             | NLM            | 3.7.2.3.2.3           | N                   | N             | Y          |
| <i>CDMA Channel List Message</i>                                             | CCLM           | 3.7.2.3.2.4           | N                   | N             | Y          |
| <i>Order Message</i>                                                         | ORDM           | 3.7.2.3.2.7           | N                   | Y             | Y          |
| <i>Channel Assignment Message</i>                                            | CAM            | 3.7.2.3.2.8           | N                   | N             | Y          |
| <i>Data Burst Message<sup>4</sup></i>                                        | DBM            | 3.7.2.3.2.9           | N                   | Y             | Y          |
| <i>Authentication Challenge Message</i>                                      | AUCM           | 3.7.2.3.2.10          | N                   | Y             | Y          |
| <i>SSD Update Message</i>                                                    | SSDUM          | 3.7.2.3.2.11          | N                   | Y             | Y          |
| <i>Feature Notification Message</i>                                          | FNM            | 3.7.2.3.2.12          | N                   | Y             | Y          |
| <i>Extended System Parameters Message</i>                                    | ESPM           | 3.7.2.3.2.13          | N                   | N             | Y          |
| <i>Extended Neighbor List Message (band classes other than Band Class 0)</i> | ENLM           | 3.7.2.3.2.14          | N                   | N             | Y          |
| <i>Status Request Message</i>                                                | STRQM          | 3.7.2.3.2.15          | N                   | Y             | Y          |
| <i>Service Redirection Message</i>                                           | SRDM           | 3.7.2.3.2.16          | N                   | Y             | Y          |
| <i>General Page Message</i>                                                  | GPM            | 3.7.2.3.2.17          | N                   | Y             | Y          |
| <i>Global Service Redirection Message</i>                                    | GSRDM          | 3.7.2.3.2.18          | N                   | N             | Y          |
| <i>TMSI Assignment Message</i>                                               | TASM           | 3.7.2.3.2.19          | N                   | Y             | Y          |
| <i>PACA Message</i>                                                          | PACAM          | 3.7.2.3.2.20          | N                   | Y             | Y          |
| <i>Extended Channel Assignment Message</i>                                   | ECAM           | 3.7.2.3.2.21          | N                   | Y             | Y          |
| <i>General Neighbor List Message</i>                                         | GNLM           | 3.7.2.3.2.22          | N                   | N             | Y          |
| <i>User Zone Identification Message</i>                                      | UZIM           | 3.7.2.3.2.23          | Y                   | N             | Y          |

<sup>4</sup> When the *Data Burst Message* is used as a broadcast message, it can be sent on a Broadcast Control Channel other than the Primary Broadcast Control Channel (see 2.6.2.1.1.3).

|                                      |      |              |   |   |   |
|--------------------------------------|------|--------------|---|---|---|
| <i>Private Neighbor List Message</i> | PNLM | 3.7.2.3.2.24 | Y | N | Y |
|--------------------------------------|------|--------------|---|---|---|

1

**Table 3.7.2.3-1. f-csch Messages (Part 2 of 2)**

| <b>Message Name</b>                                | <b>MSG_TAG</b>  | <b>Section Number</b> | <b>Primary BCCH</b> | <b>F-CCCH</b> | <b>PCH</b> |
|----------------------------------------------------|-----------------|-----------------------|---------------------|---------------|------------|
| <i>Sync Channel Message</i>                        | SCHM            | 3.7.2.3.2.26          | N                   | N             | N          |
| <i>Extended Global Service Redirection Message</i> | EGSR <u>D</u> M | 3.7.2.3.2.27          | Y                   | N             | Y          |
| <i>Extended CDMA Channel List Message</i>          | ECCLM           | 3.7.2.3.2.28          | Y                   | N             | Y          |
| <i>User Zone Reject Message</i>                    | UZRM            | 3.7.2.3.2.29          | N                   | Y             | Y          |
| <i>ANSI-41 System Parameters Message</i>           | A41SPM          | 3.7.2.3.2.30          | Y                   | N             | N          |
| <i>MC-RR Parameters Message</i>                    | MCRRPM          | 3.7.2.3.2.31          | Y                   | N             | N          |
| <i>ANSI-41 RAND Message</i>                        | A41RANDM        | 3.7.2.3.2.32          | Y                   | N             | N          |
| <i>Enhanced Access Parameters Message</i>          | EAPM            | 3.7.2.3.2.33          | Y                   | N             | N          |
| <i>Universal Neighbor List Message</i>             | UNLM            | 3.7.2.3.2.34          | Y                   | N             | N          |
| <i>Security Mode Command Message</i>               | SMCM            | 3.7.2.3.2.35          | N                   | Y             | Y          |
| <i>Universal Page Message</i>                      | UPM             | 3.7.2.3.2.36          | N                   | Y             | N          |

2

1    3.7.2.3.1 Reserved

2    3.7.2.3.2 Message Body Contents

3    The following sections specify the contents of message body for each message that may be  
4    sent on the f-csch.

## 1 3.7.2.3.2.1 System Parameters Message

2 MSG\_TAG: SPM

| <b>Field</b>         | <b>Length (bits)</b> |
|----------------------|----------------------|
| PILOT_PN             | 9                    |
| CONFIG_MSG_SEQ       | 6                    |
| SID                  | 15                   |
| NID                  | 16                   |
| REG_ZONE             | 12                   |
| TOTAL_ZONES          | 3                    |
| ZONE_TIMER           | 3                    |
| MULT_SIDS            | 1                    |
| MULT_NIDS            | 1                    |
| BASE_ID              | 16                   |
| BASE_CLASS           | 4                    |
| PAGE_CHAN            | 3                    |
| MAX_SLOT_CYCLE_INDEX | 3                    |
| HOME_REG             | 1                    |
| FOR_SID_REG          | 1                    |
| FOR_NID_REG          | 1                    |
| POWER_UP_REG         | 1                    |
| POWER_DOWN_REG       | 1                    |
| PARAMETER_REG        | 1                    |
| REG_PRD              | 7                    |
| BASE_LAT             | 22                   |
| BASE_LONG            | 23                   |
| REG_DIST             | 11                   |
| SRCH_WIN_A           | 4                    |

3

(continues on next page)

| Field               | Length (bits) |
|---------------------|---------------|
| SRCH_WIN_N          | 4             |
| SRCH_WIN_R          | 4             |
| NGHBR_MAX_AGE       | 4             |
| PWR REP THRESH      | 5             |
| PWR REP FRAMES      | 4             |
| PWR THRESH_ENABLE   | 1             |
| PWR PERIOD_ENABLE   | 1             |
| PWR REP DELAY       | 5             |
| RESCAN              | 1             |
| T_ADD               | 6             |
| T_DROP              | 6             |
| T_COMP              | 4             |
| T_TDROP             | 4             |
| EXT_SYS_PARAMETER   | 1             |
| EXT_NGHBR_LIST      | 1             |
| GEN_NGHBR_LIST      | 1             |
| GLOBAL_REDIRECT     | 1             |
| PRI_NGHBR_LIST      | 1             |
| USER_ZONE_ID        | 1             |
| EXT_GLOBAL_REDIRECT | 1             |
| EXT_CHAN_LIST       | 1             |

- PILOT\_PN - Pilot PN sequence offset index.  
The base station shall set this field to the pilot PN sequence offset for this base station, in units of 64 PN chips.
- CONFIG\_MSG\_SEQ - Configuration message sequence number.  
The base station shall set this field to CONFIG\_SEQ (see 3.6.2.2).
- SID - System identification.  
The base station shall set this field to the system identification number for this system (see 2.6.5.2).
- NID - Network identification.  
This field serves as a sub-identifier of a system as defined by the owner of the SID.

The base station shall set this field to the network identification number for this network (see 2.6.5.2).

- |           |                                                                                                                                                                                                                                                                                                                               |
|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| REG_ZONE  | - Registration zone.<br><br>The base station shall set this field to its registration zone number (see 2.6.5.1.5).                                                                                                                                                                                                            |
| TAL_ZONES | - Number of registration zones to be retained.<br><br>The base station shall set this field to the number of registration zones the mobile station is to retain for purposes of zone-based registration (see 2.6.5.1.5).<br><br>If zone-based registration is to be disabled, the base station shall set this field to '000'. |
| ONE_TIMER | - Zone timer length.<br><br>The base station shall set this field to the ZONE_TIMER value shown in Table 3.7.2.3.2.1-1 corresponding to the length of the zone registration timer to be used by mobile stations.                                                                                                              |

**Table 3.7.2.3.2.1-1. Value of Zone Timer**

| <b>ZONE_TIMER<br/>Value (binary)</b> | <b>Timer Length<br/>(Minutes)</b> |
|--------------------------------------|-----------------------------------|
| 000                                  | 1                                 |
| 001                                  | 2                                 |
| 010                                  | 5                                 |
| 011                                  | 10                                |
| 100                                  | 20                                |
| 101                                  | 30                                |
| 110                                  | 45                                |
| 111                                  | 60                                |

- MULT\_SIDS - Multiple SID storage indicator.  
If mobile stations may store entries of SID\_NID\_LIST containing different SIDs, the base station shall set this field to '1'; otherwise the base station shall set this field to '0'.
  - MULT\_NIDS - Multiple NID storage indicator.  
If mobile stations may store multiple entries of SID\_NID\_LIST having the same SID (with different NIDs), the base station shall set this field to '1'; otherwise the base station shall set this field to '0'.
  - BASE\_ID - Base station identification.

1                   The base station shall set this field to its identification  
 2                   number.

- 3            BASE\_CLASS - Base station class.  
 4                   The base station shall set this field ~~to the value shown in~~  
 5                   ~~Table 3.7.2.3.2.1-2 corresponding to the class of service~~  
 6                   ~~provided by this base station as follows:~~  
 7                   For Band Class 1 and 4, the base station shall set this field to  
 8                   '0001'; otherwise, the base station shall set this field to '0000'.

9

10                  **Table 3.7.2.3.2.1-2. Base Station Classes**

| <b>Value<br/>(binary)</b>                 | <b>Class of Service Provided</b>       |
|-------------------------------------------|----------------------------------------|
| 0000                                      | <del>Public Macrocellular System</del> |
| 0001                                      | <del>Public PCS System</del>           |
| <del>All other values are reserved.</del> |                                        |

- 11
- 12            PAGE\_CHAN - Number of Paging Channels.  
 13                   The base station shall set this field to the number of Paging  
 14                   Channels on this CDMA Channel. The base station shall not  
 15                   set this field to '000'.  
 16            MAX\_SLOT\_CYCLE-  
 17                   \_INDEX - Maximum slot cycle index.  
 18                   The base station shall set this field to the  
 19                   SLOT\_CYCLE\_INDEX value corresponding to the maximum  
 20                   slot cycle length permitted (see 2.6.2.1.1).  
 21            HOME\_REG - Home registration indicator.  
 22                   If mobile stations that are not roaming (see 2.6.5.3) and have  
 23                   MOB\_TERM\_HOME equal to '1' are to be enabled for  
 24                   autonomous registrations, the base station shall set this field  
 25                   to '1'. If such mobile stations are not to be enabled for  
 26                   autonomous registration, the base station shall set this field  
 27                   to '0'.  
 28            FOR\_SID\_REG - SID roamer registration indicator.  
 29                   If mobile stations that are foreign SID roamers (see 2.6.5.3)  
 30                   and have MOB\_TERM\_FOR\_SID equal to '1' are to be enabled  
 31                   for autonomous registration, the base station shall set this  
 32                   field to '1'. If such mobile stations are not to be enabled for  
 33                   autonomous registration, the base station shall set this field  
 34                   to '0'.  
 35            FOR\_NID\_REG - NID roamer registration indicator.

If mobile stations that are foreign NID roamer (see 2.6.5.3) and have MOB\_TERM\_FOR\_NID equal to '1' are to be enabled for autonomous registration, the base station shall set this field to '1'. If such mobile stations are not to be enabled for autonomous registration, the base station shall set this field to '0'.

- |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| POWER_UP_REG  | <ul style="list-style-type: none"> <li>- Power-up registration indicator.</li> </ul> <p>If mobile stations enabled for autonomous registration are to register immediately after powering on and receiving the system overhead messages, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.</p>                                                                                                        |
| WER_DOWN_REG  | <ul style="list-style-type: none"> <li>- Power-down registration indicator.</li> </ul> <p>If mobile stations enabled for autonomous registration are to register immediately before powering down, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.</p>                                                                                                                                              |
| PARAMETER_REG | <ul style="list-style-type: none"> <li>- Parameter-change registration indicator.</li> </ul> <p>If mobile stations are to register on parameter change events as specified in 2.6.5.1.6, the base station shall set this field to '1'. If not, the base station shall set this field to '0'.</p>                                                                                                                                                           |
| REG_PRD       | <ul style="list-style-type: none"> <li>- Registration period.</li> </ul> <p>If mobile stations are not to perform timer-based registration, the base station shall set this field to '0000000'. If mobile stations are to perform timer-based registration, the base station shall set this field to the value in the range 29 to 85 inclusive, such that the desired timer value is</p> $\lfloor 2\text{REG\_PRD}/4 \rfloor \times 0.08 \text{ seconds.}$ |
| BASE_LAT      | <ul style="list-style-type: none"> <li>- Base station latitude.</li> </ul> <p>The base station shall set this field to its latitude in units of 0.25 second, expressed as a two's complement signed number with positive numbers signifying North latitudes. The base station shall set this field to a value in the range -1296000 to 1296000 inclusive (corresponding to a range of -90° to +90°).</p>                                                   |
| BASE_LONG     | <ul style="list-style-type: none"> <li>- Base station longitude.</li> </ul> <p>The base station shall set this field to its longitude in units of 0.25 second, expressed as a two's complement signed number with positive numbers signifying East longitude. The base station shall set this field to a value in the range -2592000 to 2592000 inclusive (corresponding to a range of -180° to +180°).</p>                                                |
| REG_DIST      | <ul style="list-style-type: none"> <li>- Registration distance.</li> </ul> <p>If mobile stations are to perform distance-based registration, the base station shall set this field to the non-zero "distance" beyond which the mobile station is to re-register (see 2.6.5.1.4). If mobile stations are not to perform distance-based registration, the base station shall set this field to 0.</p>                                                        |

- 1           SRCH\_WIN\_A    - Search window size for the Active Set and Candidate Set.  
 2                          The base station shall set this field to the value shown in  
 3                          Table 2.6.6.2.1-1 corresponding to the search window size to  
 4                          be used by mobile stations for the Active Set and Candidate  
 5                          Set.
- 6           SRCH\_WIN\_N    - Search window size for the Neighbor Set.  
 7                          The base station shall set this field to the value shown in  
 8                          Table 2.6.6.2.1-1 corresponding to the search window size to  
 9                          be used by mobile stations for the Neighbor Set.
- 10          SRCH\_WIN\_R    - Search window size for the Remaining Set.  
 11                         The base station shall set this field to the value shown in  
 12                         Table 2.6.6.2.1-1 corresponding to the search window size to  
 13                         be used by mobile stations for the Remaining Set.
- 14          NGHBR\_MAX\_AGE - Neighbor Set maximum AGE.  
 15                         The base station shall set this field to the maximum AGE  
 16                         value beyond which mobile stations are to drop members from  
 17                         the Neighbor Set (see 2.6.6.2.6.3).
- 18          PWR REP THRESH - Power control reporting threshold.  
 19                         The base station shall set this field to the number of bad  
 20                         frames (see [2]) to be received in a measurement period on the  
 21                         channel which carries the Power Control Subchannel before  
 22                         mobile stations are to generate a *Power Measurement Report*  
 23                         *Message* (see 2.6.4.1.1). If the base station sets  
 24                         PWR\_THRESH\_ENABLE to '1', it shall not set this field to  
 25                         '00000'.
- 26          PWR REP FRAMES - Power control reporting frame count.  
 27                         The base station shall set this field to the value such that the  
 28                         number given by  

$$\lfloor 2^{(PWR\_REP\_FRAMES/2)} \times 5 \rfloor \text{ frames}$$
 29                         is the number of frames over which mobile stations are to  
 30                         count frame errors.
- 32          PWR\_THRESH-    - Threshold report mode indicator.  
 33                         If mobile stations are to generate threshold *Power*  
 34                         *Measurement Report Messages*, the base station shall set this  
 35                         field to '1'. If mobile stations are not to generate threshold  
 36                         *Power Measurement Report Messages*, the base station shall  
 37                         set this field to '0'.
- 38          PWR\_PERIOD-    - Periodic report mode indicator.  
 39                         If mobile stations are to generate periodic *Power Measurement*  
 40                         *Report Messages*, the base station shall set this field to '1'. If  
 41                         mobile stations are not to generate periodic *Power*  
 42                         *Measurement Report Messages*, the base station shall set this  
 43                         field to '0'.
- 44          PWR REP DELAY - Power report delay.

|    |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  |                   | The period that mobile stations wait following a <i>Power Measurement Report Message</i> before restarting frame counting for power control purposes.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 2  |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 3  |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 4  |                   | The base station shall set this field to the power report delay value, in units of 4 frames (see 2.6.4.1.1).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 5  |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 6  | RESCAN            | - Rescan indicator.<br><br>If mobile stations are to re-initialize and re-acquire the system upon receiving this message, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.                                                                                                                                                                                                                                                                                                                                                                                                     |
| 7  |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 8  |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 9  |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 10 | T_ADD             | - Pilot detection threshold.<br><br>This value is used by the mobile station to trigger the transfer of a pilot from the Neighbor Set or Remaining Set to the Candidate Set (see 2.6.6.2.6) and to trigger the sending of the <i>Pilot Strength Measurement Message</i> or <i>Extended Pilot Strength Measurement Message</i> initiating the handoff process (see 2.6.6.2.5.2).<br><br>The base station shall set this field to the pilot detection threshold, expressed as an unsigned binary number equal to $\lfloor -2 \times 10 \times \log_{10} E_c/I_o \rfloor$ .                                                             |
| 11 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 12 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 13 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 14 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 15 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 16 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 17 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 18 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 19 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 20 | T_DROP            | - Pilot drop threshold.<br><br>This value is used by mobile stations to start a handoff drop timer for pilots in the Active Set and the Candidate Set (see 2.6.6.2.3).<br><br>The base station shall set this field to the pilot drop threshold, expressed as an unsigned binary number equal to $\lfloor -2 \times 10 \times \log_{10} E_c/I_o \rfloor$ .                                                                                                                                                                                                                                                                           |
| 21 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 22 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 23 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 24 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 25 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 26 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 27 | T_COMP            | - Active Set versus Candidate Set comparison threshold.<br><br>Mobile stations transmit a <i>Pilot Strength Measurement Message</i> or an <i>Extended Pilot Strength Measurement Message</i> when the strength of a pilot in the Candidate Set exceeds that of a pilot in the Active Set by this margin (see 2.6.6.2.5.2).<br><br>The base station shall set this field to the threshold Candidate Set pilot to Active Set pilot ratio, in units of 0.5 dB.                                                                                                                                                                          |
| 28 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 29 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 30 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 31 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 32 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 33 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 34 | T_TDROPO          | - Drop timer value.<br><br>Timer value after which an action is taken by mobile stations for a pilot that is a member of the Active Set or Candidate Set, and whose strength has not become greater than T_DROP. If the pilot is a member of the Active Set, a <i>Pilot Strength Measurement Message</i> or an <i>Extended Pilot Strength Measurement Message</i> is issued. If the pilot is a member of the Candidate Set, it will be moved to the Neighbor Set.<br><br>The base station shall set this field to the T_TDROPO value shown in Table 2.6.6.2.3-1 corresponding to the drop timer value to be used by mobile stations. |
| 35 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 36 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 37 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 38 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 39 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 40 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 41 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 42 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 43 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 44 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 45 | EXT_SYS_PARAMETER | - <i>Extended System Parameters Message</i> indicator.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

- 1                   The base station shall set this field to '1'.
- 2 | EXT\_NGHBR\_LIST - *Extended Neighbor List Message* indicator.
- 3                   The base station sets this field to '1' when it sends the  
4                   *Extended Neighbor List Message* on the Paging Channel;  
5                   otherwise the base station sets this field to '0'.
- 6                   If the base station is operating in Band Class 1, Band Class 3,  
7                   or Band Class 4 with MIN\_P\_REV less than ~~sixseven~~, it shall  
8                   set this field to '1'. If the base station is operating in Band  
9                   Class 0, it shall set this field to '0'.
- 10 | GEN\_NGHBR\_LIST - *General Neighbor List Message* indicator.
- 11                  If the base station is sending the *General Neighbor List  
12                  Message* on the Paging Channel, it shall set this field to '1';  
13                  otherwise, it shall set this field to '0'.
- 14                  If the base station is operating in Band Class 1, Band Class 3,  
15                  or Band Class 4 with MIN\_P\_REV greater than or equal to  
16                  ~~sixseven~~, and if EXT\_NGHBR\_LIST is set to '0', the base  
17                  station shall set this field to '1'.
- 18                  If the base station is operating in Band Class 0 with  
19                  MIN\_P\_REV greater than or equal to seven and if the *Neighbor  
20                  List Message* is not sent, the base station shall set this field to  
21                  '1'.
- 22                  If the base station is operating in Band Class 2, Band Class 5,  
23                  Band Class 6, Band Class 7, Band Class 8, ~~or~~-Band Class 9,  
24                  or Band Class 10, and if EXT\_NGHBR\_LIST is set to '0', the  
25                  base station shall set this field to '1'.
- 26 | GLOBAL\_REDIRECT - *Global Service Redirection Message* indicator.
- 27                  If the base station is sending the *Global Service Redirection  
28                  Message* on the Paging Channel, it shall set this field to '1';  
29                  otherwise, it shall set this field to '0'.
- 30 | PRI\_NGHBR\_LIST - *Private Neighbor List Message* indicator.
- 31                  If the base station is sending the *Private Neighbor List Message*  
32                  on the Paging Channel, it shall set this field to '1'; otherwise,  
33                  it shall set this field to '0'.
- 34 | USER\_ZONE\_ID - *User Zone Identification Message* indicator.
- 35                  If the base station is sending the *User Zone Identification  
36                  Message* on the Paging Channel, it shall set this field to '1';  
37                  otherwise, it shall set this field to '0'.
- 38 | EXT\_GLOBAL\_-REDIRECT - *Extended Global Service Redirection Message* indicator.
- 39                  If the base station is sending the *Extended Global Service  
40                  Redirection Message* on the Paging Channel, it shall set this  
41                  field to '1'; otherwise, the base station shall set this field to '0'.
- 42 | EXT\_CHAN\_LIST - Extended CDMA Channel List Message indicator.

1       The base station shall set this field to ‘1’, if the *Extended*  
2       *Channel List Message* is sent on the Paging Channel,  
3       otherwise, it shall set this field to ‘0’.

## 1 3.7.2.3.2.2 Access Parameters Message

## 2 MSG\_TAG: APM

3

| <b>Field</b> | <b>Length (bits)</b> |
|--------------|----------------------|
| PILOT_PN     | 9                    |
| ACC_MSG_SEQ  | 6                    |
| ACC_CHAN     | 5                    |
| NOM_PWR      | 4                    |
| INIT_PWR     | 5                    |
| PWR_STEP     | 3                    |
| NUM_STEP     | 4                    |
| MAX_CAP_SZ   | 3                    |
| PAM_SZ       | 4                    |
| PSIST(0-9)   | 6                    |
| PSIST(10)    | 3                    |
| PSIST(11)    | 3                    |
| PSIST(12)    | 3                    |
| PSIST(13)    | 3                    |
| PSIST(14)    | 3                    |
| PSIST(15)    | 3                    |
| MSG_PSIST    | 3                    |
| REG_PSIST    | 3                    |
| PROBE_PN_RAN | 4                    |
| ACC_TMO      | 4                    |
| PROBE_BKOFF  | 4                    |
| BKOFF        | 4                    |

4

(continues on next page)

1

| <b>Field</b>                         | <b>Length (bits)</b>   |
|--------------------------------------|------------------------|
| MAX_REQ_SEQ                          | 4                      |
| MAX_RSP_SEQ                          | 4                      |
| AUTH                                 | 2                      |
| RAND                                 | 0 or 32                |
| NOM_PWR_EXT                          | 1                      |
| PSIST_EMG_INCL                       | 1                      |
| PSIST_EMG                            | 0 or 3                 |
| <a href="#">ACCT INCL</a>            | <a href="#">1</a>      |
| <a href="#">ACCT INCL EMG</a>        | <a href="#">0 or 1</a> |
| <a href="#">ACCT AOC_BITMAP INCL</a> | <a href="#">0 or 1</a> |
| <a href="#">ACCT SO INCL</a>         | <a href="#">0 or 1</a> |
| <a href="#">NUM_ACCT_SO</a>          | <a href="#">0 or 4</a> |

If ACCT SO INCL is equal to '1', NUM\_ACCT\_SO + 1 occurrences of the following variable-field record:

|                                  |                        |
|----------------------------------|------------------------|
| <a href="#">ACCT_AOC_BITMAP1</a> | <a href="#">0 or 5</a> |
| <a href="#">ACCT_SO</a>          | <a href="#">16</a>     |

|                                  |                        |
|----------------------------------|------------------------|
| <a href="#">ACCT_SO_GRP_INCL</a> | <a href="#">0 or 1</a> |
| <a href="#">NUM_ACCT_SO_GRP</a>  | <a href="#">0 or 3</a> |

If ACCT\_SO\_GRP\_INCL is equal to '1', NUM\_ACCT\_SO\_GRP + 1 occurrences of the following variable-field record:

|                                  |                        |
|----------------------------------|------------------------|
| <a href="#">ACCT_AOC_BITMAP2</a> | <a href="#">0 or 5</a> |
| <a href="#">ACCT_SO_GRP</a>      | <a href="#">5</a>      |

2

3

PILOT\_PN - Pilot PN sequence offset index.

4

The base station shall set this field to the pilot PN sequence offset for this base station, in units of 64 PN chips.

5

ACC\_MSG\_SEQ - Access parameters message sequence number.

7

The base station shall set this field to ACC\_CONFIG\_SEQ (see 3.6.2.2).

8

ACC\_CHAN - Number of Access Channels.

- |            |                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|            | The base station shall set this field to one less than the number of Access Channels associated with this Paging Channel.                                                                                                                                                                                                                                                                                                                                  |
| NOM_PWR    | <ul style="list-style-type: none"> <li>- Nominal transmit power offset.<br/>The base station shall set this field to the correction factor to be used by mobile stations in the open loop power estimate, expressed as a two's complement value in units of 1 dB (see [2]).</li> </ul>                                                                                                                                                                     |
| INIT_PWR   | <ul style="list-style-type: none"> <li>- Initial power offset for access.<br/>The base station shall set this field to the correction factor to be used by mobile stations in the open loop power estimate for the initial transmission on an Access Channel, expressed as a two's complement value in units of 1 dB (see [2]).</li> </ul>                                                                                                                 |
| PWR_STEP   | <ul style="list-style-type: none"> <li>- Power increment.<br/>The base station shall set this field to the value by which mobile stations are to increase their transmit power between successive access probes in an access probe sequence, in units of 1 dB.</li> </ul>                                                                                                                                                                                  |
| NUM_STEP   | <ul style="list-style-type: none"> <li>- Number of access probes.<br/>The base station shall set this field to one less than the maximum number of access probes mobile stations are to transmit in a single access probe sequence.</li> </ul>                                                                                                                                                                                                             |
| AX_CAP_SZ  | <ul style="list-style-type: none"> <li>- Maximum Access Channel message capsule size.<br/>The base station shall set this field to the value in the range 0 to 7, three less than the maximum number of Access Channel frames in an Access Channel message capsule.</li> </ul>                                                                                                                                                                             |
| PAM_SZ     | <ul style="list-style-type: none"> <li>- Access Channel preamble length.<br/>The base station shall set this field to one less than the number of Access Channel frames that mobile stations are to transmit in each Access Channel preamble.</li> </ul>                                                                                                                                                                                                   |
| PSIST(0-9) | <ul style="list-style-type: none"> <li>- Persistence value for access overload classes 0 through 9.<br/>If mobile stations in access overload classes 0 through 9 are permitted to transmit requests on the Access Channel, the base station shall set this field to the persistence value to be used. If such mobile stations are not permitted to transmit requests on the Access Channel, the base station shall set this field to '111111'.</li> </ul> |
| PSIST(10)  | <ul style="list-style-type: none"> <li>- Persistence value for access overload class 10 (test mobile stations).<br/>If mobile stations in access overload class 10 are permitted to transmit requests on the Access Channel, the base station shall set this field to the persistence value to be used. If such mobile stations are not permitted to transmit requests on the Access Channel, the base station shall set this field to '111'.</li> </ul>   |

- 1 PSIST(11) - Persistence value for access overload class 11 (emergency  
2 mobile stations).
- 3 If mobile stations in access overload class 11 are permitted to  
4 transmit requests on the Access Channel, the base station  
5 shall set this field to the persistence value to be used. If such  
6 mobile stations are not permitted to transmit requests on the  
7 Access Channel, the base station shall set this field to '111'.
- 8 PSIST(12) - Persistence value for access overload class 12.
- 9 If mobile stations in access overload class 12 are permitted to  
10 transmit requests on the Access Channel, the base station  
11 shall set this field to the persistence value to be used. If such  
12 mobile stations are not permitted to transmit requests on the  
13 Access Channel, the base station shall set this field to '111'.
- 14 PSIST(13) - Persistence value for access overload class 13.
- 15 If mobile stations in access overload class 13 are permitted to  
16 transmit requests on the Access Channel, the base station  
17 shall set this field to the persistence value to be used. If such  
18 mobile stations are not permitted to transmit requests on the  
19 Access Channel, the base station shall set this field to '111'.
- 20 PSIST(14) - Persistence value for access overload class 14.
- 21 If mobile stations in access overload class 14 are permitted to  
22 transmit requests on the Access Channel, the base station  
23 shall set this field to the persistence value to be used. If such  
24 mobile stations are not permitted to transmit requests on the  
25 Access Channel, the base station shall set this field to '111'.
- 26 PSIST(15) - Persistence value for access overload class 15.
- 27 If mobile stations in access overload class 15 are permitted to  
28 transmit requests on the Access Channel, the base station  
29 shall set this field to the persistence value to be used. If such  
30 mobile stations are not permitted to transmit requests on the  
31 Access Channel, the base station shall set this field to '111'.
- 32 MSG\_PSIST - Persistence modifier for Access Channel attempts for message  
33 transmissions.  
34 A mobile station multiplies its transmission probability by  
35  $2^{-\text{MSG\_PSIST}}$  for such attempts.  
36 The base station shall set this field to the persistence modifier  
37 for Access Channel attempts for message transmissions.
- 38 REG\_PSIST - Persistence modifier for Access Channel attempts for  
39 registrations which are not responses to the *Registration  
40 Request Order*.  
41 A mobile station multiplies its transmission probability by  
42  $2^{-\text{REG\_PSIST}}$  for such attempts.  
43 The base station shall set this field to the persistence modifier  
44 for Access Channel attempts for registrations which are not  
45 responses to the *Registration Request Order*.

- 1           PROBE\_PN\_RAN   - Time randomization for Access Channel probes.  
 2           A mobile station delays its transmission from System Time by  
 3           RN PN chips, where RN is a number determined by hashing  
 4           between 0 and  $2^{\text{PROBE\_PN\_RAN}} - 1$  PN chips.
- 5           The base station shall set this field to the value in the range 0  
 6           to 9 inclusive such that the time randomization range is  
 7            $2^{\text{PROBE\_PN\_RAN}} - 1$  PN chips.
- 8           ACC\_TMO   - Acknowledgment timeout.  
 9           The base station shall set this field to two less than the length  
 10          of time mobile stations are to wait after the end of an Access  
 11          Channel transmission before determining that the base  
 12          station did not receive the transmission, in units of 80 ms.
- 13          PROBE\_BKOFF   - Access Channel probe backoff range.  
 14          The base station shall set this field to one less than the  
 15          maximum number of slots mobile stations are to delay due to  
 16          random backoff between consecutive access probes.
- 17          BKOFF   - Access Channel probe sequence backoff range.  
 18          The base station shall set this field to one less than the  
 19          maximum number of slots mobile stations are to delay due to  
 20          random backoff between successive access probe sequences  
 21          and before the first access probe sequence of a response  
 22          access.
- 23          MAX\_REQ\_SEQ   - Maximum number of access probe sequences for an Access  
 24          Channel request.  
 25          The base station shall set this field to the maximum number  
 26          of access probe sequences mobile stations are to transmit for  
 27          an Access Channel request. The base station shall set this  
 28          field to a value greater than 0.
- 29          MAX\_RSP\_SEQ   - Maximum number of access probe sequences for an Access  
 30          Channel response.  
 31          The base station shall set this field to the maximum number  
 32          of access probe sequences mobile stations are to transmit for  
 33          an Access Channel response. The base station shall set this  
 34          field to a value greater than 0.
- 35          AUTH   - Authentication mode.  
 36          If mobile stations are to include standard authentication data  
 37          in Access Channel messages, the base station shall set this  
 38          field to '01'. If mobile stations are not to include  
 39          authentication data in Access Channel messages, the base  
 40          station shall set this field to '00'. All other values are  
 41          reserved.
- 42          RAND   - Random challenge value.

1                   If the AUTH field is set to '01', the base station shall set this  
 2                   field to the random challenge value to be used by mobile  
 3                   stations for authentication. If the AUTH field is set to any  
 4                   other value, the base station shall omit this field.

5                   NOM\_PWR\_EXT     - Extended nominal transmit power.  
 6                   If the base station is operating in Band Class 0 or Band Class  
 7                   3, it shall set this field to '0'.  
 8                   If the base station is operating in a band class other than  
 9                   Band Class 0 or Band Class 3 otherwise, then it shall set this  
 10                  field as follows:

11                  If the correction factor to be used by mobile stations in the  
 12                  open loop power estimate is between -24 dB and -9 dB  
 13                  inclusive, the base station shall set this field to '1'; otherwise  
 14                  (the correction factor is in the range -8 dB to 7 dB inclusive),  
 15                  the base station shall set this field to '0'.

16                  PSIST\_EMG\_INCL    - Emergency persistence included indicator.  
 17                  If PSIST\_EMG is included in this message, the base station  
 18                  shall set this field to '1'; otherwise, the base station shall set  
 19                  this field to '0'. The base station shall not include PSIST\_EMG  
 20                  in this message if the base station supports the Enhanced  
 21                  Access Channel.

22                  If the base station does not support Common Channel  
 23                  operation and if the base station includes PSIST\_EMG, which  
 24                  is applicable to mobile stations with MOB\_P\_REV equal to or  
 25                  greater than 7, the base station shall set this field to '1'.

26                  PSIST\_EMG        - Persistence value for emergency call for access overload  
 27                  classes 0 through 9.

28                  If PSIST\_EMG\_INCL is set to '0', the base station shall omit  
 29                  this field; otherwise, the base station shall set this field as  
 30                  follows:

31                  If a mobile station in access overload classes 0 through 9 is  
 32                  permitted to transmit emergency requests on the Access  
 33                  Channel, the base station shall set this field to the persistence  
 34                  value to be used for the emergency calls. If such a mobile  
 35                  station is not permitted to transmit emergency requests on  
 36                  the Access Channel, the base station shall set this field to  
 37                  '111'.

38                  ACCT\_INCL        - Access Control based on Call Type (ACCT) information  
 39                  included indicator.

40                  If the base station enables ACCT for at least one service  
 41                  option, the base station shall set this field to '1'; otherwise,  
 42                  the base station shall set this field to '0'.

43                  If the base station sets this field to '1', then the base station  
 44                  shall also set at least one of ACCT\_SO\_INCL or  
 45                  ACCT\_SO\_GRP\_INCL to '1'.

1        ACCT INCL EMG - Access Control based on Call Type (ACCT) includes emergency  
 2        calls indicator.

3        If ACCT INCL is set to '0', the base station shall omit this  
 4        field; otherwise, the base station shall include this field and  
 5        set it as follows:

6        The base station shall set this field to '0' if the mobile station  
 7        is not to apply ACCT to a call that is recognized by the mobile  
 8        station to be an emergency call; otherwise, the base station  
 9        shall set this field to '1'.

10      ACCT AOC

11      BITMAP INCL - Access Control based on Call Type (ACCT) access overload  
 12      class bitmap included indicator.

13      If ACCT INCL is set to '0', the base station shall omit this  
 14      field; otherwise, the base station shall include this field and  
 15      set it as follows:

16      The base station shall set this field to '0' if all mobile stations  
 17      are to apply ACCT regardless of their access overload classes;  
 18      otherwise, the base station shall set this field to '1' to indicate  
 19      that the mobile station is to apply ACCT according to its  
 20      access overload class.

21      ACCT SO INCL - Access Control based on Call Type (ACCT) service option  
 22      included indicator.

23      If ACCT INCL is set to '0', the base station shall omit this  
 24      field; otherwise, the base station shall include this field and  
 25      set it as follows:

26      The base station shall set this field to '1' if at least one  
 27      occurrence of the ACCT SO field is included in this message;  
 28      otherwise, the base station shall set this field to '0'.

29      NUM ACCT SO - Number of service options for Access Control based on Call  
 30      Type (ACCT).

31      If ACCT SO INCL is not included, or is included and set to '0',  
 32      then the base station shall omit this field; otherwise, the base  
 33      station shall include this field and set it to one less than the  
 34      number of occurrences of the ACCT SO field included in this  
 35      message.

36      If ACCT SO INCL is included and set to '1', then the base station shall include  
 37      NUM ACCT SO + 1 occurrences of the following variable-field record:

38      ACCT AOC BITMAP1 - Access Control based on Call Type (ACCT) access overload  
 39      class bitmap.

40      If ACCT AOC BITMAP1 INCL is set to '0', then the base station  
 41      shall omit this field; otherwise, the base station shall include  
 42      this field and set it as follows:

43      This field consists of the subfields defined in Table  
 44      3.7.2.3.2.2-1.

1 **Table 3.7.2.3.2.2-1. ACCT access overload class bitmap subfields.**

| <u>Subfield</u>   | <u>Length<br/>(bits)</u> | <u>Subfield Description</u>            |
|-------------------|--------------------------|----------------------------------------|
| <u>ACCOLC_0_1</u> | <u>1</u>                 | <u>Access overload classes 0 and 1</u> |
| <u>ACCOLC_2_3</u> | <u>1</u>                 | <u>Access overload classes 2 and 3</u> |
| <u>ACCOLC_4_5</u> | <u>1</u>                 | <u>Access overload classes 4 and 5</u> |
| <u>ACCOLC_6_7</u> | <u>1</u>                 | <u>Access overload classes 6 and 7</u> |
| <u>ACCOLC_8_9</u> | <u>1</u>                 | <u>Access overload classes 8 and 9</u> |

2  
3       The base station shall set a subfield to '1' to indicate that  
4       mobile stations having the corresponding access overload  
5       class are not permitted to perform access attempts using the  
6       associated service option ACCT SO; otherwise, the base  
7       station shall set the subfield to '0'.

8       ACCT SO - Access Control based on Call Type (ACCT) service option  
9       number.

10      The base station shall set this field to the value of the service  
11       option number (as specified in [30]) that has ACCT enabled.

12      ACCT SO GRP INCL - Access Control based on Call Type (ACCT) service option group  
13       included indicator.

14      If ACCT INCL is set to '0', the base station shall omit this  
15       field; otherwise, the base station shall include this field and  
16       set it as follows:

17      The base station shall set this field to '1' if at least one  
18       occurrence of the ACCT SO GRP field is included in this  
19       message; otherwise, the base station shall set this field to '0'.

20      NUM ACCT SO GRP - Number of service option groups for Access Control based on  
21       Call Type (ACCT).

22      If ACCT SO GRP INCL is not included, or is included and set  
23       to '0', then the base station shall omit this field; otherwise, the  
24       base station shall include this field and set it to one less than  
25       the number of occurrences of the ACCT SO GRP field  
26       included in this message.

27      If ACCT SO GRP INCL is included and set to '1', then the base station shall include  
28       NUM ACCT SO GRP + 1 occurrences of the following variable-field record:

29      ACCT AOC\_BITMAP2 - Access Control based on Call Type (ACCT) access overload  
30       class bitmap.

31      If ACCT AOC\_BITMAP INCL is set to '0', then the base station  
32       shall omit this field; otherwise, the base station shall include  
33       this field and set it as follows:

This field consists of the subfields defined in Table 3.7.2.3.2.2-1. The base station shall set a subfield to '1' to indicate that mobile stations having the corresponding access overload class are not permitted to perform access attempts using a service option specified by the associated ACCT SO GRP field; otherwise, the base station shall set the subfield to '0'.

ACCT SO GRP - Access Control based on Call Type (ACCT) service option group number.

The base station shall set this field to the value of the service option group number (as specified in [30]) whose members all have ACCT enabled.

## 1    3.7.2.3.2.3 Neighbor List Message

2    MSG\_TAG: NLM

| <b>Field</b>   | <b>Length (bits)</b> |
|----------------|----------------------|
| PILOT_PN       | 9                    |
| CONFIG_MSG_SEQ | 6                    |
| PILOT_INC      | 4                    |

Zero or more occurrences of the following record:

|              |   |
|--------------|---|
| NGHBR_CONFIG | 3 |
| NGHBR_PN     | 9 |

3

4    PILOT\_PN    -    Pilot PN sequence offset index.

5                 The base station shall set this field to the pilot PN sequence  
6                 offset for this base station, in units of 64 PN chips.

7    CONFIG\_MSG\_SEQ    -    Configuration message sequence number.

8                 The base station shall set this field to CONFIG\_SEQ  
9                 (see 3.6.2.2).

10    PILOT\_INC    -    Pilot PN sequence offset index increment.

11                 A mobile station searches for Remaining Set pilots at pilot PN  
12                 sequence index values that are multiples of this value.13                 The base station shall set this field to the pilot PN sequence  
14                 increment, in units of 64 PN chips, that mobile stations are to  
15                 use for searching the Remaining Set. The base station should  
16                 set this field to the largest increment such that the pilot PN  
17                 sequence offsets of all its neighbor base stations are integer  
18                 multiples of that increment.19                 The base station shall set this field to a value in the range 1 to  
20                 15 inclusive.

21

22                 The base station shall include one occurrence of the following two-field record for each  
23                 member mobile stations are to place in their Neighbor Sets. The base station may include  
24                 zero or more occurrences of the following record.

25    NGHBR\_CONFIG    -    Neighbor configuration.

26                 The base station shall set this field to the value shown in  
27                 Table 3.7.2.3.2.3-1 corresponding to the configuration of this  
28                 neighbor.

29

**Table 3.7.2.3.2.3-1. Neighbor Configuration Field**

| <b>Value<br/>(binary)</b> | <b>Neighbor Configuration</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 000                       | <p>The neighbor base station has the same number of frequencies having Paging Channels as the current base station.</p> <p>The neighbor base station has a CDMA frequency assignment that is same as this current CDMA frequency assignment and with the same number of Paging Channels.</p> <p>The position of the neighbor CDMA frequency assignment in the <i>CDMA Channel List Message</i> or the <i>Extended CDMA Channel List Message</i> transmitted by the neighbor base station is the same as the position of this current CDMA frequency assignment in the <i>CDMA Channel List Message</i> or the <i>Extended CDMA Channel List Message</i> transmitted by the current base station.</p>                                                                                                              |
| 001                       | <p>The neighbor base station has the same number of frequencies having Paging Channels as the current base station.</p> <p>The neighbor base station has a CDMA frequency assignment that is same as this current CDMA frequency assignment but possibly with a different number of Paging Channels.</p> <p>The position of the neighbor CDMA frequency assignment in the <i>CDMA Channel List Message</i> or the <i>Extended CDMA Channel List Message</i> transmitted by the neighbor base station is the same as the position of this current CDMA frequency assignment in the <i>CDMA Channel List Message</i> or the <i>Extended CDMA Channel List Message</i> transmitted by the current base station.</p> <p>This corresponding neighbor CDMA frequency assignment does have a Primary Paging Channel.</p> |
| 010                       | <p>The neighbor base station may have a different number of frequencies having Paging Channels as the current base station.</p> <p>The neighbor base station has a Primary Paging Channel on the first CDMA Channel listed in the <i>CDMA Channel List Message</i> or the <i>Extended CDMA Channel List Message</i> transmitted by the current base station.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

|         |                                                                                                                                                                                               |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 011     | The neighbor base station configuration is unknown but the neighbor base station has a Pilot Channel on the CDMA frequency assignment that is same as this current CDMA frequency assignment. |
| 100-111 | Reserved.                                                                                                                                                                                     |

1

2

NGHBR\_PN - Neighbor pilot PN sequence offset index.

3

The base station shall set this field to the pilot PN sequence offset for this neighbor, in units of 64 PN chips.

4

## 1    3.7.2.3.2.4 CDMA Channel List Message

2    MSG\_TAG: CCLM

| <b>Field</b>   | <b>Length (bits)</b> |
|----------------|----------------------|
| PILOT_PN       | 9                    |
| CONFIG_MSG_SEQ | 6                    |

One or more occurrences of the following field:

|           |    |
|-----------|----|
| CDMA_FREQ | 11 |
|-----------|----|

3

4    PILOT\_PN    -    Pilot PN sequence offset index.  
5                 The base station shall set this field to the pilot PN sequence  
6                 offset for this base station, in units of 64 PN chips.7    CONFIG\_MSG\_SEQ    -    Configuration message sequence number.  
8                 The base station shall set this field to CONFIG\_SEQ  
9                 (see 3.6.2.2).10      CDMA\_FREQ    -    CDMA Channel frequency assignment.  
11                 The order in which occurrences of this field are included gives  
12                 the designations of the supported CDMA Channels as CDMA  
13                 Channel 1 through CDMA Channel N.14  
15                 The base station shall include one occurrence of this field for  
16                 each CDMA Channel containing a Paging Channel that is  
17                 supported by this base station. If the supported CDMA  
18                 Channels are in the preferred set of CDMA frequency  
19                 assignments (see [2]), the base station shall include their  
20                 occurrences of this field first.21                 The base station shall set each occurrence of this field to the  
22                 CDMA channel number corresponding to the CDMA frequency  
23                 assignment for that CDMA Channel (see [2]).

1      3.7.2.3.2.5 Reserved

2      No text.

1 3.7.2.3.2.6 Reserved

2 No text.

## 1    3.7.2.3.2.7 Order Message

2    MSG\_TAG: ORDM

| <b>Field</b>                    | <b>Length (bits)</b>  |
|---------------------------------|-----------------------|
| ORDER                           | 6                     |
| ADD_RECORD_LEN                  | 3                     |
| Order-specific fields (if used) | 8<br>× ADD_RECORD_LEN |

3

4            ORDER    -    Order code.

5                         The base station shall set this field to the ORDER code  
6                         (see 3.7.4) for this type of order.

7            ADD\_RECORD\_LEN    -    Additional record length.

8                         The base station shall set this field to the number of octets in  
9                         the order-specific fields included in this order record.

10          Order-specific fields    -    Order-specific fields.

11                         The base station shall include order-specific fields as specified  
12                         in 3.7.4 for this type of order.

## 1 3.7.2.3.2.8 Channel Assignment Message

2 MSG\_TAG: CAM

| Field                    | Length (bits)      |
|--------------------------|--------------------|
| ASSIGN_MODE              | 3                  |
| ADD_RECORD_LEN           | 3                  |
| Additional record fields | 8 × ADD_RECORD_LEN |

3

4 If ASSIGN\_MODE = '000', the additional record fields shall be:

5

|                                |                   |
|--------------------------------|-------------------|
| FREQ_INCL                      | 1                 |
| CODE_CHAN                      | 8                 |
| CDMA_FREQ                      | 0 or 11           |
| FRAME_OFFSET                   | 4                 |
| ENCRYPT_MODE                   | 2                 |
| <u>D SIG_ENCRYPT_MODE</u>      | 0 or 3            |
| <u>USE_NEW_KEY</u>             | <u>0 or 1</u>     |
| <u>ENC_KEY_SIZE</u>            | 0 or 3            |
| <u>KEY_SEQ</u>                 | <u>0 or 4</u>     |
| <u>C SIG_ENCRYPT_MODE_INCL</u> | <u>1</u>          |
| <u>C SIG_ENCRYPT_MODE</u>      | <u>0 or 3</u>     |
| RESERVED                       | 0 - 7 (as needed) |

6

7 If ASSIGN\_MODE = '001', the additional record fields shall be:

8

|           |         |
|-----------|---------|
| RESPOND   | 1       |
| FREQ_INCL | 1       |
| CDMA_FREQ | 0 or 11 |

One or more occurrences of the following field:

|          |   |
|----------|---|
| PILOT_PN | 9 |
|----------|---|

|          |                   |
|----------|-------------------|
| RESERVED | 0 - 7 (as needed) |
|----------|-------------------|

9

1 If ASSIGN\_MODE = '010', the additional record fields shall be:

2

|                |   |
|----------------|---|
| RESPOND        | 1 |
| ANALOG_SYS     | 1 |
| USE_ANALOG_SYS | 1 |
| BAND_CLASS     | 5 |

3

4 If ASSIGN\_MODE = '011', the additional record fields shall be:

5

|              |    |
|--------------|----|
| SID          | 15 |
| VMAC         | 3  |
| ANALOG_CHAN  | 11 |
| SCC          | 2  |
| MEM          | 1  |
| AN_CHAN_TYPE | 2  |
| DSCC_MSB     | 1  |
| BAND_CLASS   | 5  |

6

1 If ASSIGN\_MODE = '100', the additional record fields shall be:

2

|                                |                   |
|--------------------------------|-------------------|
| FREQ_INCL                      | 1                 |
| RESERVED                       | 3                 |
| BYPASS_ALERT_ANSWER            | 1                 |
| DEFAULT_CONFIG                 | 3                 |
| GRANTED_MODE                   | 2                 |
| CODE_CHAN                      | 8                 |
| FRAME_OFFSET                   | 4                 |
| ENCRYPT_MODE                   | 2                 |
| BAND_CLASS                     | 0 or 5            |
| CDMA_FREQ                      | 0 or 11           |
| <u>D_SIG_ENCRYPT_MODE</u>      | 0 or 3            |
| <u>USE_NEW_KEY</u>             | <del>0 or 1</del> |
| <u>ENC_KEY_SIZE</u>            | 0 or 3            |
| <u>KEY_SEQ</u>                 | <del>0 or 4</del> |
| <u>C SIG ENCRYPT MODE INCL</u> | <u>1</u>          |
| <u>C SIG ENCRYPT MODE</u>      | <u>0 or 3</u>     |
| RESERVED                       | 0 - 7 (as needed) |

3

4 If ASSIGN\_MODE = '101', the additional record fields shall be:

5

|            |         |
|------------|---------|
| RESPOND    | 1       |
| FREQ_INCL  | 1       |
| BAND_CLASS | 0 or 5  |
| CDMA_FREQ  | 0 or 11 |

One or more occurrences of the following field:

|          |   |
|----------|---|
| PILOT_PN | 9 |
|----------|---|

|          |                   |
|----------|-------------------|
| RESERVED | 0 - 7 (as needed) |
|----------|-------------------|

6

7 ASSIGN\_MODE - Assignment mode.

1           The base station shall set this field to the value shown in  
 2           Table 3.7.2.3.2.8-1 corresponding to the assignment mode for  
 3           this assignment.

5           **Table 3.7.2.3.2.8-1. Assignment Mode**

| <b>Value<br/>(binary)</b>      | <b>Assignment Mode</b>                            |
|--------------------------------|---------------------------------------------------|
| 000                            | Traffic Channel Assignment<br>(Band Class 0 only) |
| 001                            | Paging Channel Assignment<br>(Band Class 0 only)  |
| 010                            | Acquire Analog System                             |
| 011                            | Analog Voice Channel Assignment                   |
| 100                            | Extended Traffic Channel<br>Assignment            |
| 101                            | Extended Paging Channel<br>Assignment             |
| All other values are reserved. |                                                   |

- 6
- 7        ADD\_RECORD\_LEN    - Additional record length.  
 8           The base station shall set this field to the number of octets in  
 9           the additional record fields included in this assignment  
 10          record.
- 11      Additional record fields    - Additional record fields.  
 12           The additional record fields are determined by the value of  
 13           ASSIGN\_MODE, as described below.
- 14
- 15      If the ASSIGN\_MODE field is set to '000', the base station shall include the following fields:
- 16        FREQ\_INCL    - Frequency included indicator.  
 17           If the CDMA\_FREQ field is included in this assignment record,  
 18           the base station shall set this bit to '1'. If the CDMA\_FREQ  
 19           field is not included in this assignment record, the base  
 20           station shall set this bit to '0'.
- 21        CODE\_CHAN    - Code channel.  
 22           The base station shall set this field to the code channel index  
 23           (see [2]) in the range 1 to 63 inclusive that the mobile station  
 24           is to use on the Fundamental Channel of the Forward Traffic  
 25           Channel.
- 26        CDMA\_FREQ    - Frequency assignment.

If the FREQ\_INCL bit is set to '1', the base station shall set this field to the CDMA Channel number corresponding to the CDMA frequency assignment for the CDMA Channel containing the Forward Traffic Channel the mobile station is to use. If the FREQ\_INCL bit is set to '0', the base station shall omit this field.

- 7      FRAME\_OFFSET    -    Frame offset.  
8      The Forward and Reverse Traffic Channel frames are delayed  
9      FRAME\_OFFSET × 1.25 ms relative to system timing (see [2]).  
10     The base station shall set this field to the Forward and  
11    Reverse Traffic Channel frame offset.
- 12     ENCRYPT\_MODE    -    Message encryption mode.  
13     The base station shall set this field to the ENCRYPT\_MODE  
14    value shown in Table 3.7.2.3.2.8-2 corresponding to the  
15    encrypting mode that is to be used for signaling messages, as  
16    specified in 2.3.12.2.

**Table 3.7.2.3.2.8-2. Message Encryption Modes**

| <b>ENCRYPT_MODE Field<br/>(binary)</b> | <b>Encryption Mode Used</b>                  |
|----------------------------------------|----------------------------------------------|
| 00                                     | Encryption disabled                          |
| 01                                     | Basic encryption of call control messages    |
| 10                                     | Enhanced encryption of call control messages |
| 11                                     | Extended encryption of call control messages |

- 19     D\_SIG\_ENCRYPT-  
20     \_MODE    -    General-Dedicated channel signaling encryption mode indicator.  
21     If ENCRYPT\_MODE is set to '11', the base station shall include  
22     this field and shall set it to the dedicated channel signaling  
23     message-encryption mode, as shown in Table 3.7.4.5-1; otherwise  
24     the base station shall omit this field.
- 26     USE\_NEW\_KEY    Use new encryption key indication  
27     If ENCRYPT\_MODE is set to '10' or '11', the base station shall  
28     include this field; otherwise, the base station shall omit this field.  
29     If this field is included, the base station shall set this field to '0' to  
30     indicate that the stored encryption key is to be used by the mobile  
31     station and to '1' to indicate that the new encryption key is to be  
32     used by the mobile station.
- 33     ENC\_KEY\_SIZE    -    Encryption key size indication.

1            If ENCRYPT MODE is set to '10' or '11', USE\_NEW\_KEY is  
 2            included and is set to '0', the base station shall omit this field;  
 3            otherwise, the base station shall include this field and shall set it  
 4            to the encryption key size, as shown in Table 3.7.4.5-2; otherwise,  
 5            the base station shall omit this field.

6            KEY\_SEQ — Encryption key sequence number.

7            If USE\_NEW\_KEY is included and is set to '0', the base station  
 8            shall include this field; otherwise, the base station shall omit this  
 9            field. If this field is included, the base station shall set it to the  
 10          encryption key sequence number to be used by the mobile  
 11          station.

### C SIG ENCRYPT

13          MODE INCL - Common channel signaling encryption mode included  
 14          indicator.

15          If P REV IN USE is less than seven, the base station shall set  
 16          this field to '0'; otherwise, the base station shall set this field  
 17          as follows:

18          If common channel signaling encryption information is  
 19          included in this message, the base station shall set this field  
 20          to '1'; otherwise, the base station shall set this field to '0'.

### C SIG ENCRYPT

22          MODE - Common channel signaling encryption mode indicator.

23          If C SIG ENCRYPT MODE INCL is set to '1', the base station  
 24          shall include this field and shall set it to the common channel  
 25          signaling encryption mode, as shown in Table 3.7.4.5-1;  
 26          otherwise, the base station shall omit this field.

27          RESERVED - Reserved bits.

29          The base station shall add reserved bits as needed in order to  
 30          make the total length of the fields after the preceding  
 31          ADD\_RECORD\_LEN field through this RESERVED field equal  
 32          to an integer number of octets. The base station shall set  
 33          these bits to '0'.

35          If the ASSIGN\_MODE field is set to '001', the base station shall include the following fields:

36          RESPOND - Respond on new Access Channel indicator.

37          If the mobile station is to retransmit an *Origination Message* or  
 38          *Page Response Message* after processing this channel  
 39          assignment, the base station shall set this field to '1'. The  
 40          base station may set this field to '0' only in response to a *Page*  
 41          *Response Message*.

- 1           FREQ\_INCL   - Frequency included indicator.  
 2           If the CDMA\_FREQ field is included in this assignment record,  
 3           the base station shall set this bit to '1'. If the CDMA\_FREQ  
 4           field is not included in this assignment record, the base  
 5           station shall set this bit to '0'.
- 6           CDMA\_FREQ   - Frequency assignment.  
 7           If the FREQ\_INCL bit is set to '1', the base station shall set  
 8           this field to the CDMA Channel number corresponding to the  
 9           CDMA frequency assignment for the CDMA Channel  
 10          containing the Paging Channel the mobile station is to use. If  
 11          the FREQ\_INCL bit is set to '0', the base station shall omit this  
 12          field.
- 13          PILOT\_PN   - Pilot PN sequence offset index.  
 14          The base station shall include one occurrence of this field for  
 15          each base station whose Paging Channel may be monitored by  
 16          the mobile station. For each occurrence, the base station  
 17          shall set this field to the pilot PN sequence offset for a base  
 18          station, in units of 64 PN chips. The base station having this  
 19          pilot PN sequence offset should support a Primary Paging  
 20          Channel with the same Paging Channel rate as the current  
 21          base station.
- 22          RESERVED   - Reserved bits.  
 23          The base station shall add reserved bits as needed in order to  
 24          make the total length of the fields, after the preceding  
 25          ADD\_RECORD\_LEN field through this RESERVED field, equal  
 26          to an integer number of octets. The base station shall set  
 27          these bits to '0'.
- 28
- 29          If the ASSIGN\_MODE field is set to '010', the base station shall include the following fields:
- 30           RESPOND   - Respond on analog control channel indicator.  
 31           If the mobile station is to retransmit an *Origination Message* or  
 32           *Page Response Message* on the analog control channel (see [6])  
 33           after processing this channel assignment, the base station  
 34           shall set this field to '1'. The base station may set this field to  
 35           '0' only in response to a *Page Response Message*.
- 36           ANALOG\_SYS   - System indicator.  
 37           If USE\_ANALOG\_SYS is equal to '0', the base station shall set  
 38           this field to '0'. Otherwise, the base station shall set this field  
 39           to '0' if the mobile station is to use analog system A, or to '1' if  
 40           the mobile station is to use analog system B.
- 41           USE\_ANALOG\_SYS   - Use analog system indicator.  
 42           The base station shall set this field to '1' to direct the mobile  
 43           station to the analog system specified by ANALOG\_SYS;  
 44           otherwise, the base station shall set this field to '0'.
- 45           BAND\_CLASS   - Band class.

1                   The base station shall set this field according to values defined  
 2                   in [30].  
 3

4     If the ASSIGN\_MODE field is set to '011', the base station shall include the following fields:

- 5         SID      - System identification of the analog system.  
        The base station shall set this field to the system identification  
        of the analog system supporting the assigned voice channel  
        for this assignment (see [6]).
- 6         VMAC     - Voice mobile station attenuation code.  
        The base station shall set this field to the mobile station  
        power level associated with the assigned voice channel for this  
        assignment (see [6]).
- 7         ANALOG\_CHAN - Voice channel number.  
        The base station shall set this field to the voice channel  
        number for this assignment (see [6]).
- 8         SCC      - SAT color code.  
        The base station shall set this field to the supervisory audio  
        tone color code associated with the assigned voice channel. If  
        the assignment is to a narrow analog channel, the base  
        station shall set this field to the two least significant bits of  
        the DSCC.
- 9         MEM      - Message encryption mode indicator.  
        If analog control message encryption is to be enabled on the  
        assigned forward and reverse analog voice channels, the base  
        station shall set this bit to '1'; otherwise, the base station  
        shall set this bit to '0'.
- 10        AN\_CHAN\_TYPE - Analog voice channel type.  
        The base station shall set this field to the analog channel type  
        as specified in Table 3.7.3.3.2.6-1. If the mobile station does  
        not have narrow analog capability, the base station shall set  
        this field to '00'.
- 11        DSCC\_MSB   - Digital supervisory audio tone color code most significant bit.  
        The base station shall set this field to '0' when directing  
        handoff to a wide analog channel. The base station shall set  
        this field to the most significant bit of the DSCC when  
        directing handoff to a narrow analog channel.
- 12        BAND\_CLASS - Band class.  
        The base station shall set this field according to values defined  
        in [30].

41    If the ASSIGN\_MODE field is set to '100', the base station shall include the following fields:

- 1           FREQ\_INCL    - Frequency included indicator.  
2  
3  
4  
5  
6  
7           RESERVED     - Reserved bits.  
8  
9           BYPASS\_ALERT-  
10           \_ANWER      - Bypass alert indicator.  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20           DEFAULT\_CONFIG - Default Configuration.  
21  
22  
23  
24
- If the BAND\_CLASS and CDMA\_FREQ fields are included in this assignment record, the base station shall set this bit to '1'. If the BAND\_CLASS and CDMA\_FREQ fields are not included in this assignment record, the base station shall set this bit to '0'.
- The base station shall set this field to '000'.
- If the MOB\_P\_REV of the current band class of the mobile station is less than or equal to three, the base station shall set this field to '0'; otherwise, the base station shall set this field as follows.
- If the base station has received a *Page Response Message* that specifies a packet data service option, and the mobile station is to bypass the *Waiting for Order Substate* and the *Waiting for Mobile Station Answer Substate*, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.
- If the GRANTED\_MODE field is set to '00', the base station shall set this field as specified in Table 3.7.2.3.2.8-3 to indicate an initial multiplex option and radio configuration for the Forward and Reverse Traffic Channels.

**Table 3.7.2.3.2.8-3. Default Configuration**

| <b>Value<br/>(binary)</b>      | <b>Default Configuration</b>                                                                                                                               |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 000                            | Multiplex Option 1 and Radio Configuration 1 for both the Forward Traffic Channel and the Reverse Traffic Channel                                          |
| 001                            | Multiplex Option 2 and Radio Configuration 2 for both the Forward Traffic Channel and the Reverse Traffic Channel                                          |
| 010                            | Multiplex Option 1 and Radio Configuration 1 for the Forward Traffic channel; Multiplex Option 2 and Radio Configuration 2 for the Reverse Traffic channel |
| 011                            | Multiplex Option 2 and Radio Configuration 2 for the Forward Traffic channel; Multiplex Option 1 and Radio Configuration 1 for the Reverse Traffic channel |
| All other values are reserved. |                                                                                                                                                            |

GRANTED\_MODE - Granted mode.

The base station shall set this field to '00' to indicate that the mobile station is to use an initial service configuration consisting of the multiplex option and radio configuration defined by the DEFAULT\_CONFIG field for the Forward and Reverse Traffic Channels, and to indicate that service negotiation is to take place before the base station sends the first *Service Connect Message*.

The base station shall set this field to '01' to indicate that the mobile station is to use an initial service configuration consisting of the default multiplex option and transmission rates corresponding to the service option requested by the mobile station either in the *Origination Message* or *Page Response Message*, and to indicate that service negotiation is to take place before the base station sends the first *Service Connect Message*.

The base station shall set this field to '10' to indicate that the mobile station is to use an initial service configuration consisting of the default multiplex option and transmission rates corresponding to the service option requested by the mobile station either in the *Origination Message* or *Page Response Message*, and to indicate that service negotiation is not to take place before the base station sends the first *Service Connect Message*.

- |              |                                                                                                                                                                                                                                                                                                                                                              |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CODE_CHAN    | - Code channel.                                                                                                                                                                                                                                                                                                                                              |
|              | The base station shall set this field to the code channel index (see [2]) in the range 1 to 63 inclusive that the mobile station is to use on the Fundamental Channel of the Forward Traffic Channel.                                                                                                                                                        |
| FRAME_OFFSET | - Frame offset.                                                                                                                                                                                                                                                                                                                                              |
|              | The Forward and Reverse Traffic Channel frames are delayed <u>FRAME_OFFSET</u> × 1.25 ms relative to system timing (see [2]).                                                                                                                                                                                                                                |
|              | The base station shall set this field to the Forward and Reverse Traffic Channel frame offset.                                                                                                                                                                                                                                                               |
| CRYPT_MODE   | - Message encryption mode.                                                                                                                                                                                                                                                                                                                                   |
|              | The base station shall set this field to the ENCRYPT_MODE value shown in Table 3.7.2.3.2.8-2 corresponding to the encrypting mode that is to be used for signaling messages, as specified in 2.3.12.2.                                                                                                                                                       |
| BAND_CLASS   | - Band class.                                                                                                                                                                                                                                                                                                                                                |
|              | If the FREQ_INCL bit is set to '1', the base station shall set this field to the CDMA band class, as specified in [30], corresponding to the CDMA frequency assignment for the CDMA Channel containing the Forward Traffic Channel the mobile station is to use. If the FREQ_INCL bit is set to '0', the base station shall omit this field.                 |
| CDMA_FREQ    | - Frequency assignment.                                                                                                                                                                                                                                                                                                                                      |
|              | If the FREQ_INCL bit is set to '1', the base station shall set this field to the CDMA Channel number, in the specified CDMA band class, corresponding to the CDMA frequency assignment for the CDMA Channel containing the Forward Traffic Channel the mobile station is to use. If the FREQ_INCL bit is set to '0', the base station shall omit this field. |
| ENCRYPT_MODE | - <u>Dedicated channel signalingGeneral</u> -encryption mode indicator                                                                                                                                                                                                                                                                                       |
|              | If ENCRYPT_MODE is set to '11', the base station shall include this field and shall set it to <u>the dedicated channel signal message encryption-encyption</u> -mode, as shown in Table 3.7.4.5; otherwise the base station shall omit this field.                                                                                                           |
| SE_NEW_KEY   | <u>Use new encryption key indication</u>                                                                                                                                                                                                                                                                                                                     |

1                    If ENCRYPT\_MODE is set to '10' or '11', the base station shall  
 2                    include this field; otherwise, the base station shall omit this field.  
 3                    If this field is included, the base station shall set this field to '0' to  
 4                    indicate that the stored encryption key is to be used by the mobile  
 5                    station and to '1' to indicate that the new encryption key is to be  
 6                    used by the mobile station.

7            **ENC\_KEY\_SIZE** - Encryption key size indication.

8                    If ENCRYPT\_MODE is set to '10' or '11' USE\_NEW\_KEY is included  
 9                    and is set to '0', the base station shall omit this field; otherwise,  
 10                  the base station shall include this field and shall set it to the  
 11                  encryption key size, as shown in Table 3.7.4.5-2; otherwise, the  
 12                  base station shall omit this field.

13            **KEY\_SEQ** - Encryption key sequence number.

14                    If USE\_NEW\_KEY is included and is set to '0', the base station  
 15                    shall include this field; otherwise, the base station shall omit this  
 16                    field. If this field is included, the base station shall set it to the  
 17                    encryption key sequence number to be used by the mobile  
 18                    station.

### 19            **C SIG ENCRYPT**

20            **MODE\_INCL** - Common channel signaling encryption mode included  
 21                    indicator.

22                    If P\_REV\_IN\_USE is less than seven, the base station shall set  
 23                    this field to '0'; otherwise, the base station shall set this field  
 24                    as follows:

25                    If common channel signaling encryption information is  
 26                    included in this message, the base station shall set this field  
 27                    to '1'; otherwise, the base station shall set this field to '0'.

### 28            **C SIG ENCRYPT**

29            **MODE** - Common channel signaling encryption mode indicator.

30                    If C\_SIG\_ENCRYPT\_MODE\_INCL is set to '1', the base station  
 31                    shall include this field and shall set it to the common channel  
 32                    signaling encryption mode, as shown in Table 3.7.4.5-1;  
 33                    otherwise, the base station shall omit this field.

35            **RESERVED** - Reserved bits.

36                    The base station shall add reserved bits as needed in order to  
 37                    make the total length of the fields after the preceding  
 38                    ADD\_RECORD\_LEN field through this RESERVED field equal  
 39                    to an integer number of octets. The base station shall set  
 40                    these bits to '0'.

41            If the ASSIGN\_MODE field is set to '101', the base station shall include the following fields:

- 1           RESPOND    -    Respond on new Access Channel indicator.
- 2                         If the mobile station is to retransmit an *Origination Message* or  
 3                         *Page Response Message* after processing this channel  
 4                         assignment, the base station shall set this field to '1'. The  
 5                         base station may set this field to '0' only in response to a *Page*  
 6                         *Response Message*.
- 7           FREQ\_INCL    -    Frequency included indicator.
- 8                         If the BAND\_CLASS and CDMA\_FREQ fields are included in  
 9                         this assignment record, the base station shall set this bit to  
 10                        '1'. If the BAND\_CLASS and CDMA\_FREQ fields are not  
 11                        included in this assignment record, the base station shall set  
 12                        this bit to '0'.
- 13          BAND\_CLASS    -    Band class.
- 14                         If the FREQ\_INCL bit is set to '1', the base station shall set  
 15                        this field to the CDMA band class, as specified in [30],  
 16                        corresponding to the CDMA frequency assignment for the  
 17                        CDMA Channel containing the Paging Channel the mobile  
 18                        station is to use. If the FREQ\_INCL bit is set to '0', the base  
 19                        station shall omit this field.
- 20          CDMA\_FREQ    -    Frequency assignment.
- 21                         If the FREQ\_INCL bit is set to '1', the base station shall set  
 22                        this field to the CDMA Channel number, in the specified  
 23                        CDMA band class, corresponding to the CDMA frequency  
 24                        assignment for the CDMA Channel containing the Paging  
 25                        Channel the mobile station is to use. If the FREQ\_INCL bit is  
 26                        set to '0', the base station shall omit this field.
- 27          PILOT\_PN      -    Pilot PN sequence offset index.
- 28                         The base station shall include one occurrence of this field for  
 29                         each base station whose Paging Channel may be monitored by  
 30                         the mobile station. For each occurrence, the base station  
 31                         shall set this field to the pilot PN sequence offset for a base  
 32                         station, in units of 64 PN chips. The base station having this  
 33                         pilot PN sequence offset should support a Primary Paging  
 34                         Channel with the same Paging Channel rate as the current  
 35                         base station.
- 36          RESERVED     -    Reserved bits.
- 37                         The base station shall add reserved bits as needed in order to  
 38                         make the total length of the fields after the preceding  
 39                         ADD\_RECORD\_LEN field through this RESERVED field equal  
 40                         to an integer number of octets. The base station shall set  
 41                         these bits to '0'.

## 1    3.7.2.3.2.9 Data Burst Message

## 2    MSG\_TAG: DBM

| <b>Field</b> | <b>Length (bits)</b> |
|--------------|----------------------|
| MSG_NUMBER   | 8                    |
| BURST_TYPE   | 6                    |
| NUM_MSGS     | 8                    |
| NUM_FIELDS   | 8                    |

NUM\_FIELDS occurrences of the following field:

|       |   |
|-------|---|
| CHARi | 8 |
|-------|---|

3

- 4    MSG\_NUMBER    -    Message number.  
 5                    The base station shall set this field to the number of this  
 6                    message within the data burst stream.
- 7    BURST\_TYPE    -    Data burst type.  
 8                    The base station shall set the value of this field for the type of  
 9                    this data burst as defined in [30]. If the mobile station sets  
 10                 this field equal to '111110', it shall set the first two CHARi  
 11                 fields of this message equal to  
 12                 EXTENDED\_BURST\_TYPE\_INTERNATIONAL as described in  
 13                 the definition of CHARi below. If the base station sets this  
 14                 field equal to '111111', it shall set the first two CHARi fields of  
 15                 this message equal to the EXTENDED\_BURST\_TYPE as  
 16                 described in the definition of CHARi below.
- 17    NUM\_MSGS    -    Number of messages in the data burst stream.  
 18                    The base station shall set this field to the number of messages  
 19                 in this data burst stream.
- 20    NUM\_FIELDS    -    Number of characters in this message.  
 21                    The base station shall set this field to the number of  
 22                 occurrences of the CHARi field included in this message.
- 23    CHARi    -    Character.  
 24                    The base station shall include NUM\_FIELDS occurrences of  
 25                 this field. The base station shall set these fields to the  
 26                 corresponding octet of the data burst stream.

If the BURST\_TYPE field of this message is equal to '111110', the first two CHARi octets shall represent a 16 bit EXTENDED\_BURST\_TYPE\_INTERNATIONAL field, which is encoded as shown below. The first ten bits of this field contain a binary mapping of the Mobile Country Code (MCC) associated with the national standards organization administering the use of the remaining octets of the message. Encoding of the MCC shall be as specified in 2.3.1.3. The remaining six bits of the EXTENDED\_BURST\_TYPE\_INTERNATIONAL field shall specify the COUNTRY\_BURST\_TYPE. The base station shall set the value of the COUNTRY\_BURST\_TYPE according to the type of this data burst as defined in standards governed by the country where this data burst type is to be used.

| <b>Field</b>           | <b>Length (bits)</b>               |
|------------------------|------------------------------------|
| Mobile Country Code    | 10                                 |
| COUNTRY_BURST_TYPE     | 6                                  |
| Remaining CHARi fields | $8 \times (\text{NUM_FIELDS} - 2)$ |

If the BURST\_TYPE field of this message is equal to '111111', the first two CHARi octets shall represent a single, 16 bit, EXTENDED\_BURST\_TYPE field, as shown below. The base station shall set the value of the EXTENDED\_BURST\_TYPE according to the type of this data burst as defined in [30].

| <b>Field</b>                                    | <b>Length (bits)</b>               |
|-------------------------------------------------|------------------------------------|
| EXTENDED_BURST_TYPE<br>(first two CHARi fields) | 16                                 |
| Remaining CHARi fields                          | $8 \times (\text{NUM_FIELDS} - 2)$ |

## 1    3.7.2.3.2.10 Authentication Challenge Message

2    MSG\_TAG: AUCM

| <b>Field</b> | <b>Length (bits)</b> |
|--------------|----------------------|
| RANDU        | 24                   |

3

4            RANDU    -    Random challenge data.

5            The base station shall set this field to the random challenge  
6            data (see 2.3.12.1.4).

1    3.7.2.3.2.11 SSD Update Message

2    MSG\_TAG: SSDUM

| Field   | Length (bits) |
|---------|---------------|
| RANDSSD | 56            |

3

4    RANDSSD - Random data for the computation of SSD.

5    The base station shall set this field as specified in 2.3.12.1.5.

## 1    3.7.2.3.2.12 Feature Notification Message

2    MSG\_TAG: FNM

| <b>Field</b> | <b>Length (bits)</b> |
|--------------|----------------------|
| RELEASE      | 1                    |

One or more occurrences of the following record:

|                      |                               |
|----------------------|-------------------------------|
| RECORD_TYPE          | 8                             |
| RECORD_LEN           | 8                             |
| Type-specific fields | $8 \times \text{RECORD\_LEN}$ |

3

4    RELEASE    -    Origination completion indicator.

5                 The base station shall set this field to '1' if this message is  
6                 used to complete an origination request from the mobile  
7                 station (see 2.6.3.5); otherwise, the base station shall set this  
8                 field to '0'.

9

10          The base station shall include occurrences of the following three-field record as specified in  
11         3.7.5.

12          RECORD\_TYPE    -    Information record type.

13                 The base station shall set this field as specified in 3.7.5.

14          RECORD\_LEN    -    Information record length.

15                 The base station shall set this field to the number of octets in  
16                 the type-specific fields included in this record.

17          Type-specific fields    -    Type-specific fields.

18                 The base station shall include type-specific fields as specified  
19                 in 3.7.5.

## 1 3.7.2.3.2.13 Extended System Parameters Message

2 MSG\_TAG: ESPM

| <b>Field</b>          | <b>Length (bits)</b>              |
|-----------------------|-----------------------------------|
| PILOT_PN              | 9                                 |
| CONFIG_MSG_SEQ        | 6                                 |
| DELETE_FOR_TMSI       | 1                                 |
| USE_TMSI              | 1                                 |
| PREF_MSID_TYPE        | 2                                 |
| MCC                   | 10                                |
| IMSI_11_12            | 7                                 |
| TMSI_ZONE_LEN         | 4                                 |
| TMSI_ZONE             | $8 \times \text{TMSI\_ZONE\_LEN}$ |
| BCAST_INDEX           | 3                                 |
| IMSI_T_SUPPORTED      | 1                                 |
| P_REV                 | 8                                 |
| MIN_P_REV             | 8                                 |
| SOFT_SLOPE            | 6                                 |
| ADD_INTERCEPT         | 6                                 |
| DROP_INTERCEPT        | 6                                 |
| PACKET_ZONE_ID        | 8                                 |
| MAX_NUM_ALT_SO        | 3                                 |
| RESELECT_INCLUDED     | 1                                 |
| EC_THRESH             | 0 or 5                            |
| EC_IO_THRESH          | 0 or 5                            |
| PILOT_REPORT          | 1                                 |
| NGHBR_SET_ENTRY_INFO  | 1                                 |
| ACC_ENT_HO_ORDER      | 0 or 1                            |
| NGHBR_SET_ACCESS_INFO | 1                                 |
| ACCESS_HO             | 0 or 1                            |
| ACCESS_HO_MSG_RSP     | 0 or 1                            |

(continues on next page)

1

| <b>Field</b>           | <b>Length (bits)</b> |
|------------------------|----------------------|
| ACCESS_PROBE_HO        | 0 or 1               |
| ACC_HO_LIST_UPD        | 0 or 1               |
| ACC_PROBE_HO_OTHER_MSG | 0 or 1               |
| MAX_NUM_PROBE_HO       | 0 or 3               |
| NGHBR_SET_SIZE         | 0 or 6               |

If NGHBR\_SET\_ENTRY\_INFO = 1, NGHBR\_SET\_SIZE occurrences of the following field; otherwise, no occurrence of the following field:

|                 |   |
|-----------------|---|
| ACCESS_ENTRY_HO | 1 |
|-----------------|---|

If NGHBR\_SET\_ACCESS\_INFO = 1, NGHBR\_SET\_SIZE occurrences of the following field; otherwise, no occurrence of the following field:

|                   |   |
|-------------------|---|
| ACCESS_HO_ALLOWED | 1 |
|-------------------|---|

|                         |        |
|-------------------------|--------|
| BROADCAST_GPS_ASST      | 1      |
| QPCH_SUPPORTED          | 1      |
| NUM_QPCH                | 0 or 2 |
| QPCH_RATE               | 0 or 1 |
| QPCH_POWER_LEVEL_PAGE   | 0 or 3 |
| QPCH_CCI_SUPPORTED      | 0 or 1 |
| QPCH_POWER_LEVEL_CONFIG | 0 or 3 |
| SDB_SUPPORTED           | 1      |
| RLGAIN_TRAFFIC_PILOT    | 6      |
| REV_PWR_CNTL_DELAY_INCL | 1      |
| REV_PWR_CNTL_DELAY      | 0 or 2 |
| AUTO_MSG_SUPPORTED      | 1      |
| AUTO_MSG_INTERVAL       | 0 or 3 |

(continues on next page)

2

1

| Field                           | Length (bits) |
|---------------------------------|---------------|
| MOB_QOS                         | 1             |
| ENC_SUPPORTED                   | 1             |
| SIG_ENCRYPT_SUP                 | 0 or 8        |
| UI_ENCRYPT_SUP                  | 0 or 8        |
| <b>STORE_KEY</b>                | <b>0 or 1</b> |
| USE_SYNC_ID                     | 1             |
| CS_SUPPORTED                    | 1             |
| <u>BCCH_SUPPORTED</u>           | <u>1</u>      |
| <u>MS_INIT_POS_LOC_SUP_IND</u>  | <u>1</u>      |
| <u>PILOT_INFO_REQ_SUPPORTED</u> | <u>1</u>      |

2

- 3 PILOT\_PN - Pilot PN sequence offset index.  
4 The base station shall set this field to the pilot PN sequence  
5 offset for this base station, in units of 64 PN chips.
- 6 CONFIG\_MSG\_SEQ - Configuration message sequence number.  
7 The base station shall set this field to CONFIG\_SEQ  
8 (see 3.6.2.2).
- 9 DELETE\_FOR\_TMSI - Delete foreign TMSI.  
10 The base station shall set this field to '1' to cause the mobile  
11 station to delete its TMSI if the TMSI was assigned in a  
12 different TMSI zone from that specified by the TMSI\_ZONE  
13 field of this message; otherwise, the base station shall set this  
14 field to '0'.
- 15 USE\_TMSI - Use TMSI indicator.  
16 The base station shall set this field to the value shown in  
17 Table 3.7.2.3.2.13-1 corresponding to the type of MSID that  
18 the mobile station is to use on the Access Channel.
- 19 PREF\_MSID\_TYPE - Preferred Access Channel Mobile Station Identifier Type.  
20 The base station shall set this field to the value shown in  
21 Table 3.7.2.3.2.13-1 corresponding to the type of MSID that  
22 the mobile station is to use on the Access Channel.
- 23

**Table 3.7.2.3.2.13-1. Preferred MSID Types**

| <b>USE_TMSI<br/>(binary)</b>   | <b>PREF_MSID_TYPE<br/>(binary)</b> | <b>Description</b>                                                 |
|--------------------------------|------------------------------------|--------------------------------------------------------------------|
| 0                              | 00                                 | IMSI_S and ESN                                                     |
| 0                              | 10                                 | IMSI                                                               |
| 0                              | 11                                 | IMSI and ESN                                                       |
| 1                              | 10                                 | TMSI (valid TMSI is assigned);<br>IMSI (TMSI not assigned)         |
| 1                              | 11                                 | TMSI (valid TMSI is assigned);<br>IMSI and ESN (TMSI not assigned) |
| All other values are reserved. |                                    |                                                                    |

- 2
- 3           MCC     - Mobile Country Code.  
         The base station shall set this field to the MCC (see 2.3.1)
- 4           IMSI\_11\_12 - 11<sup>th</sup> and 12<sup>th</sup> digits of the IMSI.  
         The base station shall set this field to the IMSI\_11\_12 (see 2.3.1).
- 5           TMSI\_ZONE\_LEN - TMSI zone length.  
         The base station shall set this field to the number of octets included in the TMSI\_ZONE. The base station shall set this field to a value in the range 1 to 8 inclusive.
- 6           TMSI\_ZONE - TMSI zone.  
         The base station shall set this field to the TMSI zone number as specified in [27].
- 7           BCAST\_INDEX - Broadcast slot cycle index.  
         To enable periodic broadcast paging, the base station shall set this field to an unsigned 3-bit number in the range 1-7, equal to the broadcast slot cycle index as defined in 2.6.2.1.1.3.3. To disable periodic broadcast paging, the base station shall set this field to '000'.
- 8           IMSI\_T\_SUPPORTED - IMSI\_T support indicator.  
         The base station shall set this field to '1' to indicate support for a 15-digit IMSI\_T addressing according to [18].
- 9           P\_REV     - Protocol revision level.  
         The base station shall set this field to '00000111'.
- 10          MIN\_P\_REV - Minimum protocol revision level.

The base station sets this field to prevent mobile stations which cannot be supported by the base station from accessing the system.

The base station shall set this field to the minimum protocol revision level that it supports. For Band Class 0 operation, the base station should set this field to a value of '00000010' or greater. For Band Class 1 or Band Class 4 operation, the base station should set this field to a value of '00000001' or greater. For Band Class 3 operation, the base station should set this field to a value of '00000011' or greater. For Band Class 2 or Band Class 5 operation, the base station should set this field to '00000101' or greater. For Band Class 6, Band Class 7, Band Class 8, ~~or~~ Band Class 9, or Band Class 10 operation, the base station should set this field to '00000110' or greater.

|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SOFT_SLOPE  | <ul style="list-style-type: none"> <li>- The slope in the inequality criterion for adding a pilot to the Active Set, or dropping a pilot from the Active Set (see 2.6.6.2.3 and 2.6.6.2.5.2).<br/>The base station shall set this field as an unsigned binary number.</li> </ul>                                                                                                                                                                                                                                                                                              |
| D_INTERCEPT | <ul style="list-style-type: none"> <li>- The intercept in the inequality criterion for adding a pilot to the Active Set (see 2.6.6.2.5.2).<br/>The base station shall set this field as a two's complement signed binary number, in units of dB.</li> </ul>                                                                                                                                                                                                                                                                                                                   |
| P_INTERCEPT | <ul style="list-style-type: none"> <li>- The intercept in the inequality criterion for dropping a pilot from the Active Set (see 2.6.6.2.3).<br/>The base station shall set this field as a two's complement signed binary number, in units of dB.</li> </ul>                                                                                                                                                                                                                                                                                                                 |
| KET_ZONE_ID | <ul style="list-style-type: none"> <li>- Packet data services zone identifier.<br/>If the base station supports a packet data service zone, the base station shall set this field to its non-zero packet data services zone identifier.<br/>If the base station does not support a packet data service zone, the base station shall set this field to '00000000'.</li> </ul>                                                                                                                                                                                                  |
| _NUM_ALT_SO | <ul style="list-style-type: none"> <li>- Maximum number of alternative service options.<br/>The base station shall set this field to the maximum number of alternative service option numbers that the mobile station is allowed to include in the <i>Origination Message</i> or the <i>Page Response Message</i>.<br/>For mobile stations with MOB_P_REV<sub>s</sub> less than seven, the alternative service options are those service options defined in [30] and related to SERVICE_OPTION in <i>Origination Message</i> and the <i>Page Response Message</i>.</li> </ul> |

For mobile stations with MOB\_P\_REV<sub>s</sub> equal to or greater than seven, the alternative service options are those service options defined in [30] without service group number assigned and related to SERVICE\_OPTION in *Origination Message* and the *Page Response Message*.

If the base station sets this field to a value greater than zero, in addition, the base station shall allow the mobile station with MOB\_P\_REV<sub>s</sub> equal to or greater than 7 to include

- a 4 or 8-bit service option bitmap in the *Origination Message* and the *Page Response Message*;
- alternate service option numbers, not limited to MAX\_ALT\_SO\_NUM, in the *Enhanced Origination Message*.

RESELECT\_INCLUDED - System reselection parameters included.

If the base station is including system reselection parameters, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.

EC\_THRESH - Pilot power threshold.

If RESELECT\_INCLUDED is set to '1', the base station shall include the field EC\_THRESH and set this field to:

$$\lceil (pilot\_power\_threshold + 115) \rceil$$

where *pilot\_power\_threshold* is the pilot power, E<sub>c</sub>, in dBm/1.23 MHz, below which the mobile station is to perform system reselection; otherwise, the base station shall omit this field.

EC\_IO\_THRESH - Pilot E<sub>c</sub>/I<sub>o</sub> threshold.

If RESELECT\_INCLUDED is set to '1', the base station shall include the field EC\_IO\_THRESH and set this field to:

$$\lfloor -20 \times \log_{10} (pilot\_threshold) \rfloor$$

where *pilot\_threshold* is the pilot E<sub>c</sub>/I<sub>o</sub> below which the mobile station is to perform system reselection; otherwise, the base station shall omit this field.

PILOT\_REPORT - Pilot reporting indicator.

The base station shall set this field to '1' if the mobile station is to report the additional pilots which have pilot strengths exceeding T\_ADD in all Access Channel messages. The base station shall set this field to '0' if the mobile station is to report the additional pilots which have pilot strengths exceeding T\_ADD only in the *Origination Message* and the *Page Response Message*.

NGHBR\_SET-  
\_ENTRY\_INFO

- Neighbor Set access entry handoff information included indicator.

If the base station is including information on the Neighbor Set access entry handoff, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.

- 1    ACC\_ENT\_HO\_ORDER    -    Access entry handoff permitted indicator.  
 2                          If NGHBR\_SET\_ENTRY\_INFO is set to '1', the base station  
 3                          shall include this field and set it as described below;  
 4                          otherwise, the base station shall omit this field.  
 5                          The base station shall set this field to '1' if the mobile station  
 6                          is permitted to perform an access entry handoff after receiving  
 7                          a message while performing the *Mobile Station Order and*  
 8                          *Message Processing Operation* in the *Mobile Station Idle State*  
 9                          (see 2.6.2.4); otherwise, the base station shall set this field to  
 10                         '0'.  
 11                         NGHBR\_SET-  
 12                         \_ACCESS\_INFO    -    Neighbor Set access handoff included indicator.  
 13                         If the base station is including information on the Neighbor  
 14                         Set access handoff or access probe handoff, the base station  
 15                         shall set this field to '1', otherwise, the base station shall set  
 16                         this field to '0'.  
 17                         ACCESS\_HO    -    Access handoff permitted indicator.  
 18                         If NGHBR\_SET\_ACCESS\_INFO is set to '1', the base station  
 19                         shall include this field and set it as described below;  
 20                         otherwise, the base station shall omit this field.  
 21                         The base station shall set this field to '1' if the mobile station  
 22                         is permitted to perform an access handoff (see 2.6.3.1.3.2);  
 23                         otherwise, the base station shall set this field to '0'.  
 24                         ACCESS\_HO\_MSG\_RSP    -    Access handoff permitted for message response indicator.  
 25                         If ACCESS\_HO is set to '1', the base station shall include this  
 26                         field and set it as described below; otherwise, the base station  
 27                         shall omit this field.  
 28                         The base station shall set this field to '1' if the mobile station  
 29                         is permitted to perform an access handoff after receiving a  
 30                         message and before responding to that message in the *System*  
 31                         *Access State*; otherwise, the base station shall set this field to  
 32                         '0'.  
 33                         ACCESS\_PROBE\_HO    -    Access probe handoff permitted indicator.  
 34                         If NGHBR\_SET\_ACCESS\_INFO is set to '1', the base station  
 35                         shall include this field and set it as described below;  
 36                         otherwise, the base station shall omit this field.  
 37                         The base station shall set this field to '1' if the mobile station  
 38                         is permitted to perform an access probe handoff (see  
 39                         2.6.3.1.3.3); otherwise, the base station shall set this field to  
 40                         '0'.  
 41                         ACC\_HO\_LIST\_UPD    -    Access handoff list update permitted indicator.  
 42                         If ACCESS\_PROBE\_HO is included and is set to '1', the base  
 43                         station shall include this field and set it as described below;  
 44                         otherwise, the base station shall omit this field.

The base station shall set this field to '1' if the mobile station is permitted to update the access handoff list during an access attempt (see 2.6.3.1.7.2); otherwise, the base station shall set this field to '0'.

## ACC\_PROBE\_HO-

- Access probe handoff permitted for messages other than the *Origination Message* and the *Page Response Message*.

If ACCESS\_PROBE\_HO is set to '1', the base station shall include this field and set it as described below; otherwise, the base station shall omit this field.

The base station shall set this field to '1' if the mobile station is permitted to perform an access probe handoff for messages other than the *Origination Message* and the *Page Response Message*. The base station shall set this field to '0' if the mobile station is permitted to perform an access probe handoff only for the *Origination Message* and the *Page Response Message*. See 2.6.3.1.3.3.

MAX\_NUM\_PROBE\_HO

- Maximum number of times that the mobile station is permitted to perform an access probe handoff.

If ACCESS\_PROBE\_HO is set to ‘1’, the base station shall include this field and set it as described below; otherwise, the base station shall omit this field.

The base station shall set this field to the maximum number of times the mobile station is allowed to perform an access probe handoff within an access attempt minus one.

## NGHBR\_SET\_SIZE

- Size of the Neighbor Set.

If NGHBR\_SET\_ENTRY\_INFO or NGHBR\_SET\_ACCESS\_INFO is equal to '1', the base station shall set this field to the number of pilots included in the *Neighbor List Message*, *Extended Neighbor List Message*, or *General Neighbor List Message*; otherwise, the base station shall omit this field.

If `NGHBR_SET_ENTRY_INFO` is equal to '1', the base station shall include `NGHBR_SET_SIZE` occurrences of the following field:

## ACCESS ENTRY HO

- Access entry handoff permitted when entering the System Access State.

The base station shall set this field to ‘1’ if the mobile station is permitted to perform an access entry handoff to the base station associated with the corresponding pilot between the time it receives a message on the Paging Channel when in the *Mobile Station Idle State* and it enters the *System Access State* to respond to the message; otherwise, the base station shall set this field to ‘0’. The base station shall use the same order for the ACCESS\_ENTRY\_HO fields in this message as is used for pilots which are listed in the *Neighbor List Message*, *Extended Neighbor List Message*, or *General Neighbor List Message*. Specifically, the  $i^{th}$  occurrence of the ACCESS\_ENTRY\_HO field shall correspond the  $i^{th}$  pilot in the *Neighbor List Message*, *Extended Neighbor List Message*, or *General Neighbor List Message*.

If NGHBR\_SET\_ACCESS\_INFO is equal to ‘1’, the base station shall include NGHBR\_SET\_SIZE occurrences of the following field:

ACCESS\_HO\_ALLOWED - Access handoff and access probe handoff permitted for the corresponding pilot while in the *System Access State*.

The base station shall set this field to ‘1’ if the mobile station is permitted to perform an access handoff or access probe handoff to the base station associated with the corresponding pilot when the mobile station is in the *System Access State* (see 2.6.3.1.8 and 2.6.3.1.9); otherwise, the base station shall set this field to ‘0’. The base station shall use the same order for the ACCESS\_HO\_ALLOWED fields in this message as is used for pilots which are listed in the *Neighbor List Message*, *Extended Neighbor List Message*, or *General Neighbor List Message*. Specifically, the  $i^{th}$  occurrence of the ACCESS\_HO\_ALLOWED field shall correspond the  $i^{th}$  pilot in the *Neighbor List Message*, *Extended Neighbor List Message*, or *General Neighbor List Message*.

BROADCAST\_GPS\_ASST - Broadcast GPS Assist Indicator.

The base station shall set this field to ‘1’ if it supports Broadcast GPS Assist capability; otherwise, the base station shall set this field to ‘0’.

QPCH\_SUPPORTED - Quick Paging Channel Supported Indication.

If the base station supports Quick Paging Channel operation, the base station shall set this field to ‘1’; otherwise the base station shall set this field to ‘0’.

NUM\_QPCH - Number of Quick Paging Channels.

If the base station sets QPCH\_SUPPORTED to ‘1’, the base station shall include this field and set it as described below; otherwise, the base station shall omit this field.

The base station shall set this field to the number of Quick Paging Channels on this CDMA Channel. The base station shall not set this field to ‘00’.

QPCH\_RATE - Quick Paging Channel indicator rate.

If the base station sets QPCH\_SUPPORTED to '1', the base station shall include this field and set it as described below; otherwise, the base station shall omit this field.

The base station shall set this field to the QPCH\_RATE field value shown in Table 3.7.2.3.2.13-2 corresponding to the indicator rate used by the Quick Paging Channel in the system.

**Table 3.7.2.3.2.13-2. QPCH Indicator Data Rate**

| <b>QPCH_RATE Field<br/>(binary)</b> | <b>QPCH indicator data rate</b> |
|-------------------------------------|---------------------------------|
| 0                                   | 4800 bps                        |
| 1                                   | 9600 bps                        |

QPCH\_POWER-  
\_LEVEL\_PAGE

- Quick Paging Channel paging indicator transmit power level.
- If the base station sets QPCH\_SUPPORTED to '1', the base station shall include this field and set it as described below; otherwise, the base station shall omit this field.
- The base station shall set this field to the Quick Paging Channel paging indicator transmit power level relative to that of the Pilot Channel as specified in Table 3.7.2.3.2.13-3.

**Table 3.7.2.3.2.13-3 Quick Paging Channel Transmit Power Level**

| <b>QPCH_POWER_LEVEL_PAGE</b>                | <b>Transmit Power Level</b>                 |
|---------------------------------------------|---------------------------------------------|
| <b>QPCH_POWER_LEVEL_CONFIG<br/>(binary)</b> |                                             |
| 000                                         | 5 dB below the Pilot Channel Transmit Power |
| 001                                         | 4 dB below the Pilot Channel Transmit Power |
| 010                                         | 3 dB below the Pilot Channel Transmit Power |
| 011                                         | 2 dB below the Pilot Channel Transmit Power |
| 100                                         | 1 dB below the Pilot Channel Transmit Power |
| 101                                         | Same as the Pilot Channel Transmit Power    |
| 110                                         | 1 dB above the Pilot Channel Transmit Power |
| 111                                         | 2 dB above the Pilot Channel Transmit Power |

- |    |                         |   |                                                                                                                                                                                                                                                                                                                                                                      |
|----|-------------------------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | QPCH_CCI_SUPPORTED      | - | Quick Paging Channel configuration change indicator supported.                                                                                                                                                                                                                                                                                                       |
| 2  |                         |   | If QPCH_SUPPORTED is set to '1', the base station shall include this field and set it as described below; otherwise, the base station shall omit this field.                                                                                                                                                                                                         |
| 3  |                         |   | If the base station supports configuration change indicators on the Quick Paging Channel, the base station shall set this field to '1'; otherwise the base station shall set this field to '0'.                                                                                                                                                                      |
| 4  | QPCH_POWER_LEVEL_CONFIG | - | Quick Paging Channel configuration change indicator transmit power level.                                                                                                                                                                                                                                                                                            |
| 5  |                         |   | If the base station includes the QPCH_CCI_SUPPORTED field and sets it to '1', the base station shall include this field and set it as described below; otherwise, the base station shall omit this field.                                                                                                                                                            |
| 6  |                         |   | The base station shall set this field to the Quick Paging Channel configuration change indicator transmit power level relative to that of the Pilot Channel as specified in Table 3.7.2.3.2.13-3.                                                                                                                                                                    |
| 7  | SDB_SUPPORTED           | - | Short Data Burst supported indicator.                                                                                                                                                                                                                                                                                                                                |
| 8  |                         |   | The base station shall set this field to '1' if the mobile station is permitted to send a Short Data Burst; otherwise, the base station shall set this field to '0'.                                                                                                                                                                                                 |
| 9  | RLGAIN_TRAFFIC_PILOT    | - | Gain adjustment of the Reverse Traffic Channel relative to the Reverse Pilot Channel for Radio Configurations greater than 2.                                                                                                                                                                                                                                        |
| 10 |                         |   | The base station shall set this field to the correction factor to be used by mobile stations in setting the power of a reverse traffic channel, expressed as a two's complement value in units of 0.125 dB (see 2.1.2.3.3 of [2]).                                                                                                                                   |
| 11 | REV_PWR-CNTL_DELAY_INCL | - | Reverse Power Control Delay included indicator.                                                                                                                                                                                                                                                                                                                      |
| 12 |                         |   | The base station shall set this field to '1' if the base station includes the REV_PWR_CNTL_DELAY field in this message; otherwise, the base station shall set this field to '0'.                                                                                                                                                                                     |
| 13 | REV_PWR-CNTL_DELAY      | - | The reverse power control delay.                                                                                                                                                                                                                                                                                                                                     |
| 14 |                         |   | If REV_PWR_CNTL_DELAY_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:                                                                                                                                                                                                        |
| 15 |                         |   | The base station shall set this field to the closed-loop reverse power control delay minus one (the closed-loop reverse power control delay is the time between the end of a gated-on reverse PCG and the beginning of the reverse PCG where the corresponding feedback is sent on the Forward Power Control Subchannel, see 2.1.2.3.2 of [2]), in units of 1.25 ms. |

- 1            \_SUPPORTED    - Autonomous message supported indicator.  
 2            If the base station allows the autonomous delivery of the  
 3            *Device Information Message* on the r-csch, the base station  
 4            shall set this field to '1'; otherwise, the base station shall set  
 5            this field to '0'.
- 6            AUTO\_MSG-  
 7            \_INTERVAL    - Autonomous message interval.  
 8            If AUTO\_MSG\_SUPPORTED is set to '[04](#)', [the base station](#)  
 9            [shall omit this field; otherwise,](#) the base station shall [include](#)  
 10          [this field and shall](#) set this field to the AUTO\_MSG\_INTERVAL  
 11          value shown in Table 3.7.2.3.2.13-4 to indicate the minimum  
 12          time interval between autonomous messages sent by a mobile  
 13          station to the infrastructure. This parameter is intended to  
 14          allow the infrastructure to limit the frequency of autonomous  
 15          messages sent by a mobile station on the r-csch.

**Table 3.7.2.3.2.13-4. AUTO\_MSG\_INTERVAL Values**

| AUTO_MSG_INTERVAL<br>(binary) | Interval Length<br>(milliseconds) |
|-------------------------------|-----------------------------------|
| 000                           | 200                               |
| 001                           | 500                               |
| 010                           | 1000                              |
| 011                           | 1500                              |
| 100                           | 2000                              |
| 101                           | 5000                              |
| 110                           | 10000                             |
| 111                           | 15000                             |

- 17  
 18            MOB\_QOS    - Indicator granting permission to the mobile station to request  
 19            QoS parameter settings in the *Origination Message*, [Origination](#)  
 20            [Continuation Message](#), or [Enhanced Origination Message](#).  
 21            The base station shall set this field to '1', if the mobile station  
 22            is allowed to include a QoS record in the *Origination Message*,  
 23            [Origination Continuation Message](#), or [Enhanced Origination](#)  
 24            [Message](#); or to '0', otherwise, [the base station shall set this](#)  
 25            [field to '0'.](#)

|    |                  |                                                                                                                                                                                                                                                                                                                                                                                       |
|----|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | ENC_SUPPORTED    | <ul style="list-style-type: none"> <li>- Encryption fields included.</li> </ul> <p>The base station shall set this field to '1' if the encryption related fields are included; otherwise the base station shall set this field to '0'.</p>                                                                                                                                            |
| 5  | SIG_ENCRYPT_SUP  | <ul style="list-style-type: none"> <li>- Signaling <u>e</u>ncryption supported indicator.</li> </ul> <p>If ENC_SUPPORTED is equal to '1', the base station shall include this field; otherwise, the base station shall omit this field. If this field is included, this field indicates which signaling encryption algorithms are supported by the base station.</p>                  |
| 11 |                  | <p>This field consists of the subfields shown in Table 2.7.1.3.2.1-5.</p>                                                                                                                                                                                                                                                                                                             |
| 13 |                  | <p>If this field is included, the base station shall set the subfields as follows:</p>                                                                                                                                                                                                                                                                                                |
| 15 |                  | <p>The base station shall set the CMEA subfield to '1'.</p>                                                                                                                                                                                                                                                                                                                           |
| 16 |                  | <p>The base station shall set each other subfield to '1' if the corresponding signaling <u>encryption</u> algorithm is supported by the base station; otherwise, the base station shall set the subfield to '0'.</p>                                                                                                                                                                  |
| 20 |                  | <p>The base station shall set the RESERVED subfield to '000000'.</p>                                                                                                                                                                                                                                                                                                                  |
| 21 | UI_ENCRYPT_SUP   | <ul style="list-style-type: none"> <li>- User information <u>e</u>ncryption supported indicator.</li> </ul> <p>If ENC_SUPPORTED is equal to '1', the base station shall include this field; otherwise, the base station shall omit this field. If this field is included, the base station shall set this field to indicate the supported user information encryption algorithms.</p> |
| 22 |                  | <p>This field consists of the subfields shown in Table 2.7.1.3.2.4-9.</p>                                                                                                                                                                                                                                                                                                             |
| 23 |                  | <p>The base station shall set each subfield to '1' if the corresponding user information encryption algorithm is supported by the base station; otherwise, the base station shall set the subfield to '0'.</p>                                                                                                                                                                        |
| 27 | <u>STORE_KEY</u> | <u>Store session key indicator</u>                                                                                                                                                                                                                                                                                                                                                    |
| 34 |                  | <p><del>If ENC_SUPPORTED is equal to '1', the base station shall include this field; otherwise, the base station shall omit this field. If this field is included, the base station shall set this field to '1' to indicate that the mobile station is to store the session key; otherwise the base station shall set this field to '0'.</del></p>                                    |
| 40 | USE_SYNC_ID      | <ul style="list-style-type: none"> <li>- Sync ID supported indicator.</li> </ul> <p>The base station shall set this field to '1' to indicate that the mobile station is permitted to include the SYNC_ID field in the <i>Page Response Message</i> and the <i>Origination Message</i>. Otherwise, the base station shall set this field to '0'.</p>                                   |
| 45 | CS_SUPPORTED     | <ul style="list-style-type: none"> <li>- Concurrent Services supported indicator.</li> </ul>                                                                                                                                                                                                                                                                                          |

1                   If the base station supports concurrent services, the base  
2                   station shall set this field to '1'; otherwise, the base station  
3                   shall set this field to '0'.

4            BCCH\_SUPPORTED - Primary Broadcast Channel Supported Indicator.

5                   If the base station supports Primary Broadcast Control  
6                   Channel, the base station shall set this field to '1'; otherwise,  
7                   the base station shall set this field to '0'.

8            MS INIT POS LOC - Mobile station initiated position location determination

9            SUP IND supported indicator.

10                  If the base station supports mobile station initiated position  
11                  determination, the base station shall set this field to '1';  
12                  otherwise, the base station shall set this field to '0'.

13            PILOT INFO REQ

14            SUPPORTED - Pilot information request supported indicator.

15                  If the base station supports mobile station request for pilot  
16                  information using the "Pilot Information" record in the *Base*  
17                  *Station Status Request Message*, the base station shall set this  
18                  field to '1'; otherwise, the base station shall set this field to '0'.

## 1    3.7.2.3.2.14 Extended Neighbor List Message

2    MSG\_TAG: ENLM

| <b>Field</b>   | <b>Length (bits)</b> |
|----------------|----------------------|
| PILOT_PN       | 9                    |
| CONFIG_MSG_SEQ | 6                    |
| PILOT_INC      | 4                    |

Zero or more occurrences of the following record:

|                 |         |
|-----------------|---------|
| NGHBR_CONFIG    | 3       |
| NGHBR_PN        | 9       |
| SEARCH_PRIORITY | 2       |
| FREQ_INCL       | 1       |
| NGHBR_BAND      | 0 or 5  |
| NGHBR_FREQ      | 0 or 11 |

3

4    PILOT\_PN    -    Pilot PN sequence offset index.

5                 The base station shall set this field to the pilot PN sequence  
6                 offset for this base station, in units of 64 PN chips.

7    CONFIG\_MSG\_SEQ    -    Configuration message sequence number.

8                 The base station shall set this field to CONFIG\_SEQ  
9                 (see 3.6.2.2).

10    PILOT\_INC    -    Pilot PN sequence offset index increment.

11                 A mobile station searches for Remaining Set pilots at pilot PN  
12                 sequence index values that are multiples of this value.13                 The base station shall set this field to the pilot PN sequence  
14                 increment, in units of 64 PN chips, that mobile stations are to  
15                 use for searching the Remaining Set. The base station should  
16                 set this field to the largest increment such that the pilot PN  
17                 sequence offsets of all its neighbor base stations are integer  
18                 multiples of that increment.19                 The base station shall set this field to a value in the range 1 to  
20                 15 inclusive.

1 The base station shall include one occurrence of the following record for each pilot that a  
 2 mobile station is to place in its Neighbor Set.

3 NGHBR\_CONFIG - Neighbor configuration.

4 The base station shall set this field to the value shown in  
 5 Table 3.7.2.3.2.14-1 corresponding to the configuration of this  
 6 neighbor.

7

8 **Table 3.7.2.3.2.14-1. Neighbor Configuration Field**

| <b>Value<br/>(binary)</b> | <b>Neighbor Configuration</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 000                       | <p>The neighbor base station has the same number of frequencies having Paging Channels as the current base station.</p> <p>The neighbor base station has a CDMA frequency assignment corresponding to this CDMA frequency assignment with the same number of Paging Channels, and the neighbor CDMA frequency is given as follows:</p> <ul style="list-style-type: none"> <li>• If FREQ_INCL equals '0' for this record, this corresponding CDMA frequency assignment is the current CDMA frequency assignment.</li> <li>• If FREQ_INCL equals '1' for this record, this corresponding CDMA frequency assignment is given by NGHBR_BAND and NGHBR_FREQ.</li> </ul> <p>The position of the neighbor CDMA frequency assignment in the <i>CDMA Channel List Message</i> or the <i>Extended CDMA Channel List Message</i> transmitted by the neighbor base station is the same as the position of this current CDMA frequency assignment in the <i>CDMA Channel List Message</i> or the <i>Extended CDMA Channel List Message</i> transmitted by the current base station.</p> |

|     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 001 | <p>The neighbor base station has the same number of frequencies having Paging Channels as the current base station.</p> <p>The neighbor base station has a CDMA frequency assignment corresponding to this CDMA frequency assignment with a different number of Paging Channels, and the neighbor CDMA frequency is given as follows:</p> <ul style="list-style-type: none"> <li>• If FREQ_INCL equals ‘0’ for this record, this corresponding CDMA frequency assignment is the current CDMA frequency assignment.</li> <li>• If FREQ_INCL equals ‘1’ for this record, this corresponding CDMA frequency assignment is given by NGHBR_BAND and NGHBR_FREQ.</li> </ul> <p>The position of the neighbor CDMA frequency assignment in the <i>CDMA Channel List Message</i> or the <i>Extended CDMA Channel List Message</i> transmitted by the neighbor base station is the same as the position of this current CDMA frequency assignment in the <i>CDMA Channel List Message</i> or the <i>Extended CDMA Channel List Message</i> transmitted by the current base station.</p> <p>This corresponding neighbor CDMA frequency assignment does have a Primary Paging Channel.</p> |
| 010 | <p>The neighbor base station may have a different number of frequencies having Paging Channels as the current base station.</p> <p>The neighbor base station has a Primary Paging Channel on the following CDMA frequency:</p> <ul style="list-style-type: none"> <li>• If FREQ_INCL equals ‘0’ for this record, the neighbor base station has a Primary Paging Channel on the first CDMA Channel listed in the <i>CDMA Channel List Message</i> or the <i>Extended CDMA Channel List Message</i> transmitted by the current base station.</li> <li>• If FREQ_INCL equals ‘1’ for this record, the neighbor base station has a Primary Paging Channel on the CDMA frequency assignment given by NGHBR_BAND and NGHBR_FREQ.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                          |

|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 011     | <p>The neighbor base station configuration is unknown but the neighbor base station has a Pilot Channel on the following frequency:</p> <ul style="list-style-type: none"> <li>• If FREQ_INCL equals ‘0’ for this record, the neighbor CDMA frequency assignment is the same as the current CDMA frequency assignment and has a Pilot Channel.</li> <li>• If FREQ_INCL equals ‘1’ for this record, the CDMA frequency assignment given by NGHBR_BAND and NGHBR_FREQ has a Pilot Channel.</li> </ul> |
| 100-111 | Reserved.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

- 1
- 2           NGHBR\_PN    - Neighbor pilot PN sequence offset index.  
3                         The base station shall set this field to the pilot PN sequence  
4                         offset for this neighbor, in units of 64 PN chips.
- 5           SEARCH\_PRIORITY    - Pilot Channel search priority.  
6                         The base station shall set this field to the search priority for  
7                         the Pilot Channel corresponding to NGHBR\_PN. The base  
8                         station shall set the search priority as shown in Table  
9                         3.7.2.3.2.14-2.

10 **Table 3.7.2.3.2.14-2. Search Priority Field**

| <b>Value<br/>(binary)</b> | <b>Search Priority</b> |
|---------------------------|------------------------|
| 00                        | Low                    |
| 01                        | Medium                 |
| 10                        | High                   |
| 11                        | Very high              |

- 11
- 12           FREQ\_INCL    - Frequency included indicator.  
13                         If the NGHBR\_BAND and NGHBR\_FREQ fields are included  
14                         for this neighbor base station, the base station shall set this  
15                         bit to ‘1’. If the NGHBR\_BAND and NGHBR\_FREQ fields are  
16                         not included for this neighbor base station, the base station  
17                         shall set this bit to ‘0’.
- 18           NGHBR\_BAND    - Neighbor band class.  
19                         If the FREQ\_INCL bit is set to ‘1’, the base station shall set  
20                         this field to the CDMA band class, as specified in [30],  
21                         corresponding to the CDMA frequency assignment for the  
22                         CDMA Channel containing the Paging Channel the mobile  
23                         station is to search. If the FREQ\_INCL bit is set to ‘0’, the  
24                         base station shall omit this field.

- 1           NGHBR\_FREQ    - Neighbor frequency assignment.  
2  
3  
4  
5  
6  
7
- If the FREQ\_INCL bit is set to '1', the base station shall set this field to the CDMA Channel number, in the specified CDMA band class, corresponding to the CDMA frequency assignment for the CDMA Channel containing the Paging Channel the mobile station is to search. If the FREQ\_INCL bit is set to '0', the base station shall omit this field.

## 1    3.7.2.3.2.15 Status Request Message

2    MSG\_TAG: STRQM

| <b>Field</b>         | <b>Length (bits)</b>              |
|----------------------|-----------------------------------|
| RESERVED             | 4                                 |
| QUAL_INFO_TYPE       | 8                                 |
| QUAL_INFO_LEN        | 3                                 |
| Type-specific fields | $8 \times \text{QUAL\_INFO\_LEN}$ |
| NUM_FIELDS           | 4                                 |

NUM\_FIELDS occurrences of the following field:

|             |   |
|-------------|---|
| RECORD_TYPE | 8 |
|-------------|---|

3

4    RESERVED    -    Reserved bits.

5                 The base station shall set this field to '0000'.

6    QUAL\_INFO\_TYPE    -    Qualification information type.

7                 The base station shall set this field to the value shown in  
8                 Table 3.7.2.3.2.15-1 to show the inclusion of qualification  
9                 information in the type-specific fields. The base station shall  
10          include the required qualification information in this message.11                 **Table 3.7.2.3.2.15-1. Qualification Information Type**

| <b>Value (binary)</b>          | <b>Included Information</b> |
|--------------------------------|-----------------------------|
| 00000000                       | None                        |
| 00000001                       | BAND_CLASS                  |
| 00000010                       | BAND_CLASS and OP_MODE      |
| All other values are reserved. |                             |

12

1

**Table 3.7.2.3.2.15-2. Status Information Record Types**

| <b>Information Record Requested</b>          | <b>Record Type<br/>(see Table 2.7.4-1)<br/>(binary)</b> | <b>QUAL_INFO_TYPE<br/>(binary)</b> |
|----------------------------------------------|---------------------------------------------------------|------------------------------------|
| Reserved for obsolete Identification         | 00000110                                                | -                                  |
| Call Mode                                    | 00000111                                                | 00000000                           |
| Terminal Information                         | 00001000                                                | 00000010                           |
| Roaming Information                          | 00001001                                                | 00000010                           |
| Security Status                              | 00001010                                                | 00000000                           |
| IMSI                                         | 00001100                                                | 00000000                           |
| ESN                                          | 00001101                                                | 00000000                           |
| Band Class Information                       | 00001110                                                | 00000000                           |
| Power Class Information                      | 00001111                                                | 00000010                           |
| Operating Mode Information                   | 00010000                                                | 00000001                           |
| Service Option Information                   | 00010001                                                | 00000010                           |
| Multiplex Option Information                 | 00010010                                                | 00000010                           |
| Service Configuration                        | 00010011                                                | 00000000                           |
| Power Control Information                    | 00010111                                                | 00000000                           |
| IMSI_M                                       | 00011000                                                | 00000000                           |
| IMSI_T                                       | 00011001                                                | 00000000                           |
| Capability Information                       | 00011010                                                | 00000000                           |
| Channel Configuration Capability Information | <u>00011011</u><br><u>00011100</u>                      | 00000000                           |
| Extended Multiplex Option Information        | <u>00011100</u><br><u>00011101</u>                      | 00000000                           |
| Geo-location Information                     | 00011110                                                | 00000000                           |
| Band Subclass Information                    | 00011111                                                | 00000001                           |
| Hook Status                                  | <u>00100001</u><br><u>00100000</u>                      | 00000000                           |
| Encryption Capability                        | <u>00100011</u><br><u>00100001</u>                      | 00000000                           |
| All other record type values are reserved.   |                                                         |                                    |

2

- 1           QUAL\_INFO\_LEN   - Qualification information length.  
 2                             The base station shall set this field to the number of octets  
 3                             included in the type-specific fields of the qualification  
 4                             information.

- 5           Type-specific fields - Type-specific fields.  
 6                             The base station shall set these fields to the qualification  
 7                             information according to the QUAL\_INFO\_TYPE field.

8                             If QUAL\_INFO\_TYPE is equal to '00000000', the type-specific  
 9                             fields are omitted.

10                          If QUAL\_INFO\_TYPE is equal to '00000001', the base station  
 11                          shall use the following fixed-length format for the type-specific  
 12                          fields:

| Type-specific Field | Length (bits) |
|---------------------|---------------|
| BAND_CLASS          | 5             |
| RESERVED            | 3             |

14                          If QUAL\_INFO\_TYPE is equal to '00000010', the base station  
 15                          shall use the following fixed-length format for the type-specific  
 16                          fields:

| Type-specific Field | Length (bits) |
|---------------------|---------------|
| BAND_CLASS          | 5             |
| OP_MODE             | 8             |
| RESERVED            | 3             |

- 19           BAND\_CLASS   - Band class.  
 20                             The base station shall set this field as defined in [30] to  
 21                             specify the band class qualification information.  
 22  
 23           OP\_MODE   - Operating mode.  
 24                             The base station shall set this field as shown in  
 25                             Table 3.7.2.3.2.15-3 to specify the operating mode  
 26                             qualification information if MOB\_P\_REV of the current band  
 27                             class is less than or equal to three. The base station shall set  
 28                             this field as shown in Table 3.7.2.3.2.15-4 to specify the  
 29                             operating mode qualification information if MOB\_P\_REV of the  
 30                             current band class is greater than three.

**Table 3.7.2.3.2.15-3. Operating Mode for MOB\_P\_REV  
Less Than or Equal to Three**

| Description                                      | Value (binary) |
|--------------------------------------------------|----------------|
| CDMA mode in Band Class 1 <u>or Band Class 4</u> | 00000000       |
| CDMA mode in Band Class 0 or Band Class 3        | 00000001       |
| analog mode [6]                                  | 00000010       |
| wide analog mode [22]                            | 00000011       |
| Narrow analog mode [22]                          | 00000100       |
| All other values are reserved.                   |                |

**Table 3.7.2.3.2.15-4. Operating Mode for MOB\_P\_REV  
Greater Than Three**

| <b>Description</b>             | <b>Standards</b> | <b>Value (binary)</b>   |
|--------------------------------|------------------|-------------------------|
| CDMA mode                      | [5]              | 00000000 or<br>00000001 |
| Analog mode                    | [6]              | 00000010                |
| Wide analog mode               | [22]             | 00000011                |
| Narrow analog mode             | [22]             | 00000100                |
| DS-41 mode                     | [32]             | 00000101                |
| MC-MAP mode                    | [31]             | 00000110                |
| All other values are reserved. |                  |                         |

**NUM FIELDS** - Number of requested fields in this message.

The base station shall set this field to the number of occurrences of RECORD\_TYPE in this message.

The base station shall only request the status information records qualified by the included qualification information in this message. The base station shall include one occurrence of the following field for each information record that is requested:

**RECORD\_TYPE** - Information record type.

The base station shall set this field to the record type value shown in Table 3.7.2.3.2.15-2 corresponding to the information record requested.

1           If MOB\_P\_REV is equal to or greater than seven, the base  
2           station shall not request the Call Mode information record  
3           (record type 00000111in Table 3.7.2.3.2.15-2).

4

## 1    3.7.2.3.2.16 Service Redirection Message

2    MSG\_TAG: SRDM

| <b>Field</b>   | <b>Length (bits)</b> |
|----------------|----------------------|
| RETURN_IF_FAIL | 1                    |
| DELETE_TMSI    | 1                    |
| REDIRECT_TYPE  | 1                    |

One occurrence of the following record:

|                      |                               |
|----------------------|-------------------------------|
| RECORD_TYPE          | 8                             |
| RECORD_LEN           | 8                             |
| Type-specific fields | $8 \times \text{RECORD\_LEN}$ |

3

4    RETURN\_IF\_FAIL    -    Return if fail indicator.

5                         The base station shall set this field to '1' if the mobile station  
 6                         is required to return to the system from which it is being  
 7                         redirected upon failure to obtain service using the redirection  
 8                         criteria specified in this message; otherwise, the base station  
 9                         shall set this field to '0'.

10                  DELETE\_TMSI    -    Delete TMSI indicator.

11                         The base station shall set this field to '1' if the mobile station  
 12                         is required to delete the TMSI assigned to the mobile station;  
 13                         otherwise, the base station shall set this field to '0'.

14                  REDIRECT\_TYPE    -    Redirect indicator.

15                         The base station shall set this field to the REDIRECT\_TYPE  
 16                         value shown in table 3.7.2.3.2.16-2 corresponding to the  
 17                         redirection type.

18                         **Table 3.7.2.3.2.16-1. Redirection Types**

| <b>Description</b> | <b>REDIRECT_TYPE<br/>(binary)</b> |
|--------------------|-----------------------------------|
| Normal redirection | 0                                 |
| NDSS redirection   | 1                                 |

19

20    The base station shall include one occurrence of the following record:

21                  RECORD\_TYPE    -    Redirection record type.

22                         The base station shall set this field to the RECORD\_TYPE  
 23                         value shown in Table 3.7.2.3.2.16-2 corresponding to the type  
 24                         of redirection specified by this record.

25

**Table 3.7.2.3.2.16-2. Redirection Record Types**

| <b>Description</b>                                                                                                                                                       | <b>RECORD_TYPE<br/>(binary)</b> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| NDSS off indication                                                                                                                                                      | 00000000                        |
| Redirection to an analog system as defined in [12], [21], [22], [25], [24], and [6]                                                                                      | 00000001                        |
| Redirection to a CDMA system as defined in [24] and [2]                                                                                                                  | 00000010                        |
| Redirection to a TACS analog system as defined in Department of Trade and Industry's TACS Mobile Station-Land Station Compatibility Specification, Issue 4, Amendment 1. | 00000011                        |
| Redirection to a JTACS analog system as defined in ARIB's RCR STD-36.                                                                                                    | 00000100                        |
| Redirection to a DS-41 system as defined in [32].                                                                                                                        | 00000101                        |
| All other RECORD_TYPE values are reserved                                                                                                                                |                                 |

- RECORD\_LEN - Redirection record length.  
If RECORD\_TYPE equals to '00000000', the base station shall set this field to '00000000'; otherwise, the base station shall set this field to the number of octets in the type-specific fields of this redirection record.
- Type-specific fields - Redirection record type-specific fields.  
The base station shall include type-specific fields based on the RECORD\_TYPE of this redirection record.
- If RECORD\_TYPE is equal to '00000000', the base station shall not include the type-specific fields.
- If RECORD\_TYPE is equal to '00000001', the base station shall include the following fields:

| <b>Field</b> | <b>Length (bits)</b> |
|--------------|----------------------|
| EXPECTED_SID | 15                   |
| IGNORE_CDMA  | 1                    |
| SYS_ORDERING | 3                    |
| RESERVED     | 5                    |

- 1           EXPECTED\_SID    -    Expected SID.  
2  
3  
4  
5  
6           IGNORE\_CDMA     -    Ignore CDMA Available indicator.  
7  
8  
9  
10  
11  
12  
13  
14  
15          SYS\_ORDERING    -    System ordering.  
16  
17  
18  
19  
20
- If the base station is redirecting the mobile station to a specific system, the base station shall set this field to the SID of that system; otherwise, the base station shall set this field to 0.
- The base station shall set this field to '1' to indicate that the mobile station is to ignore the *CDMA Capability Message* on the analog system to which it is being redirected. The base station shall set this field to '0' to indicate that the mobile station may discontinue service on the system to which it is being redirected if the mobile station receives a *CDMA Capability Message* with CDMA\_AVAIL equal to '1', and the preferred mode of the mobile station is CDMA.
- The base station shall set this field to the SYS\_ORDERING value shown in Table 3.7.2.3.2.16-3 corresponding to the order in which the mobile station is to attempt to obtain service on an analog system.

1

**Table 3.7.2.3.2.16-3. SYS\_ORDERING**

| <b>Description</b>                                                                                                                                   | <b>SYS_ORDERING<br/>(binary)</b> |
|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|
| Attempt to obtain service on either System A or B in accordance with the custom system selection process (see 2.6.1.1.1).                            | 000                              |
| Attempt to obtain service on System A only.                                                                                                          | 001                              |
| Attempt to obtain service on System B only.                                                                                                          | 010                              |
| Attempt to obtain service on System A first. If unsuccessful, attempt to obtain service on System B.                                                 | 011                              |
| Attempt to obtain service on System B first. If unsuccessful, attempt to obtain service on System A.                                                 | 100                              |
| Attempt to obtain service on either System A or System B. If unsuccessful, attempt to obtain service on the alternate system (System A or System B). | 101                              |
| All other SYS_ORDERING values are reserved                                                                                                           |                                  |

2

- 3           RESERVED   -   Reserved bits.  
 4                         The base station shall set this field to '00000'.  
 5   If RECORD\_TYPE is equal to '00000010', the base station shall include the following fields:

1

| <b>Subfield</b> | <b>Length (bits)</b> |
|-----------------|----------------------|
| BAND_CLASS      | 5                    |
| EXPECTED_SID    | 15                   |
| EXPECTED_NID    | 16                   |
| RESERVED        | 4                    |
| NUM_CHANS       | 4                    |

NUM\_CHANS occurrences of the following field:

|           |    |
|-----------|----|
| CDMA_CHAN | 11 |
|-----------|----|

|          |                 |
|----------|-----------------|
| RESERVED | 0-7 (as needed) |
|----------|-----------------|

2

3

BAND\_CLASS - Band class.

4

The base station shall set this field to the CDMA band class, as specified in [30].

5

EXPECTED\_SID - Expected SID.

6

If the base station is redirecting the mobile station to a specific system, the base station shall set this field to the SID of that system; otherwise, the base station shall set this field to 0.

7

EXPECTED\_NID - Expected NID.

8

If the base station is redirecting the mobile station to a specific network, the base station shall set this field to the NID of that network; otherwise, the base station shall set this field to 65535.

9

RESERVED - Reserved bits.

10

The base station shall set this field to '0000'.

11

NUM\_CHANS - Number of CDMA Channels.

12

The base station shall set this field to the number of occurrences of the CDMA\_CHAN field in this record.

13

CDMA\_CHAN - CDMA Channel number.

14

For each CDMA Channel on which the mobile station is to attempt to acquire a CDMA system, the base station shall include one occurrence of this field specifying the associated CDMA Channel number.

15

RESERVED - Reserved bits.

16

The base station shall add reserved bits as needed in order to make the length of the record equal to an integer number of octets. The base station shall set these bits to '0'.

## 1    3.7.2.3.2.17 General Page Message

2    MSG\_TAG: GPM

3    When Layer 3 at the base station sends a PDU corresponding to the *General Page Message*  
 4    to Layer 2, it also sends the GPM Common fields to Layer 2. These GPM Common fields  
 5    and PDUs are used by Layer 2 to assemble a Layer 2 PDU corresponding to the *General*  
 6    *Page Message* (see 3.1.2.3 of [4]).

7    GPM Common Fields:

8

| Field          | Length (bits)                 |
|----------------|-------------------------------|
| CONFIG_MSG_SEQ | 6                             |
| ACC_MSG_SEQ    | 6                             |
| CLASS_0_DONE   | 1                             |
| CLASS_1_DONE   | 1                             |
| TMSI_DONE      | 1                             |
| ORDERED_TMSIS  | 1                             |
| BROADCAST_DONE | 1                             |
| RESERVED       | 4                             |
| ADD_LENGTH     | 3                             |
| ADD_PFIELD     | $8 \times \text{ADD\_LENGTH}$ |

9

10    PDU Format for a mobile station-addressed page:

11

| Field          | Length (bits) |
|----------------|---------------|
| SERVICE_OPTION | 0 or 16       |

12

13    PDU Format for a broadcast page:

14

| Field | Length (bits) |
|-------|---------------|
| -     | 0             |

15

16    PDU Format for an enhanced broadcast page:

17

| Field                                 | Length (bits)                                           |
|---------------------------------------|---------------------------------------------------------|
| <a href="#"><u>BCCH_INDEX_BCN</u></a> | 3                                                       |
| TIME_OFFSET                           | 10                                                      |
| REPEAT_TIME_OFFSET                    | 0 or 5                                                  |
| ADD_BCAST_RECORD                      | 0 or $8 \times \text{EXT_BCAST\_SDU\_LENGTH}$ (see [4]) |

- 1
- 2     CONFIG\_MSG\_SEQ     - Configuration message sequence number.  
3                         The base station shall set this field to CONFIG\_SEQ  
4                         (see 3.6.2.2).
- 5     ACC\_MSG\_SEQ         - Access parameters message sequence number.  
6                         The base station shall set this field to ACC\_CONFIG\_SEQ  
7                         (see 3.6.2.2).
- 8     CLASS\_0\_DONE         - Class 0 pages are done.  
9                         If all messages and records directed to mobile stations  
10                        operating in the slotted mode, active in this slot, and having  
11                        an assigned class 0 IMSI have been sent by the end of this  
12                        *General Page Message*, the base station shall set this field to  
13                        ‘1’; otherwise, the base station shall set this field to ‘0’.
- 14    CLASS\_1\_DONE         - Class 1 pages are done.  
15                         If all messages and records directed to mobile stations  
16                        operating in the slotted mode, active in this slot, and having  
17                        an assigned class 1 IMSI have been sent by the end of this  
18                        *General Page Message*, the base station shall set this field to  
19                        ‘1’; otherwise, the base station shall set this field to ‘0’.
- 20    TMSI\_DONE             - TMSI pages are done.  
21                         If all the page records having PAGE\_CLASS equal to ‘10’ or  
22                        other directed messages for mobile stations operating in the  
23                        slotted mode, active in this slot, and having an assigned TMSI  
24                        have been sent by the end of this *General Page Message*, the  
25                        base station shall set this field to ‘1’; otherwise, the base  
26                        station shall set this field to ‘0’.
- 27    ORDERED\_TMSIS         - TMSIs sent in numerical order.  
28                         If all the page records of PAGE\_CLASS equal to ‘10’ are sent  
29                        such that the TMSI code values of the TMSI\_CODE\_ADDR  
30                        fields for the mobile stations operating in the slotted mode are  
31                        in ascending numerical order in all the *General Page*  
32                        *Messges* sent within this slot, the base station shall set this  
33                        field to ‘1’; otherwise, the base station shall set this field to ‘0’.
- 34    BROADCAST\_DONE         - Broadcast pages are done.

1                   If all broadcast page records (PAGE\_CLASS equal to '11') have  
 2                   been sent by the end of this *General Page Message*, the base  
 3                   station shall set this field to '1'; otherwise, the base station  
 4                   shall set this field to '0'.

5                   RESERVED    - Reserved bits.  
 6                                 The base station shall set this field to '0000'.

7                   ADD\_LENGTH - Number of octets in the page message specific fields.  
 8                                 If there are no additional page message specific fields, the  
 9                                 base station shall set this field to '000'.

10                  ADD\_PFIELD - Additional page message specific fields.  
 11                                 The base station shall not include any additional page  
 12                                 message specific fields, if ADD\_LENGTH is '000'.

13                  SERVICE\_OPTION - Service option.  
 14                                 If the base station requests a special service option in the page  
 15                                 type-specific fields(i.e., the SDU INCLUDED field, see [4], is  
 16                                 set to '1'), the base station shall set this field to the service  
 17                                 option code shown in [30], corresponding to the requested  
 18                                 service option; otherwise, the base station shall omit this field.

19                  BCCH\_INDEX\_BCN - BCCH index Broadcast Control Channel Number.  
 20                                 The base station shall set this field to the index of the BCCH  
 21                                 to which the mobile station is being redirected.

22                  TIME\_OFFSET - BCCH time offset.  
 23                                 The base station shall set this field to one less than the time  
 24                                 offset, in units of 40 ms, from the beginning of the slot in  
 25                                 which this message began to the beginning of the Broadcast  
 26                                 Control Channel slot to which the mobile station is being  
 27                                 directed.

28                  REPEAT\_TIME-  
 29                                 \_OFFSET - BCCH offset of repeat.  
 30                                         If EXT\_BCAST\_SDU\_LENGTH\_IND (see [4]) is set to '01' or '11'  
 31                                         this field is included, the base station shall set this field to  
 32                                         one less than the time offset, in units of 40 ms, from the time  
 33                                         specified by TIME\_OFFSET to the beginning of the Broadcast  
 34                                         Control Channel slot to which the mobile station is being  
 35                                         directed for a repeat of the broadcast message. Otherwise, the  
 36                                         base station shall omit this field.

37                  ADD\_BCAST\_RECORD - Additional broadcast information record.  
 38                                         The base station shall omit this field if  
 39                                         EXT\_BCAST\_SDU\_LENGTH\_IND (see 3.1.2.3.1.8 of [4]) is set  
 40                                         to '00' or '01'; otherwise, the base station shall include  
 41                                         EXT\_BCAST\_SDU\_LENGTH (see 3.1.2.3.1.8 of [4]) octets in  
 42                                         this field.

## 1    3.7.2.3.2.18 Global Service Redirection Message

## 2    MSG\_TAG: GSRDM

| <b>Field</b>    | <b>Length (bits)</b> |
|-----------------|----------------------|
| PILOT_PN        | 9                    |
| CONFIG_MSG_SEQ  | 6                    |
| REDIRECT_ACCOLC | 16                   |
| RETURN_IF_FAIL  | 1                    |
| DELETE_TMSI     | 1                    |
| EXCL_P_REV_MS   | 1                    |

One occurrence of the following record:

|                      |                               |
|----------------------|-------------------------------|
| RECORD_TYPE          | 8                             |
| RECORD_LEN           | 8                             |
| Type-specific fields | $8 \times \text{RECORD\_LEN}$ |

3

4    PILOT\_PN    -    Pilot PN sequence offset index.

5                 The base station shall set this field to the pilot PN sequence  
6                 offset for this base station, in units of 64 PN chips.

7    CONFIG\_MSG\_SEQ    -    Configuration message sequence number.

8                 The base station shall set this field to CONFIG\_SEQ  
9                 (see 3.6.2.2).

- 1   REDIRECT\_ACCOLC   -   Redirected access overload classes.

2                         This field consists of the following subfields:

| <b>Subfield</b> | <b>Length<br/>(bits)</b> | <b>Subfield Description</b> |
|-----------------|--------------------------|-----------------------------|
| ACCOLC_0        | 1                        | Access overload class 0     |
| ACCOLC_1        | 1                        | Access overload class 1     |
| ACCOLC_2        | 1                        | Access overload class 2     |
| ACCOLC_3        | 1                        | Access overload class 3     |
| ACCOLC_4        | 1                        | Access overload class 4     |
| ACCOLC_5        | 1                        | Access overload class 5     |
| ACCOLC_6        | 1                        | Access overload class 6     |
| ACCOLC_7        | 1                        | Access overload class 7     |
| ACCOLC_8        | 1                        | Access overload class 8     |
| ACCOLC_9        | 1                        | Access overload class 9     |
| ACCOLC_10       | 1                        | Access overload class 10    |
| ACCOLC_11       | 1                        | Access overload class 11    |
| ACCOLC_12       | 1                        | Access overload class 12    |
| ACCOLC_13       | 1                        | Access overload class 13    |
| ACCOLC_14       | 1                        | Access overload class 14    |
| ACCOLC_15       | 1                        | Access overload class 15    |

3                         The base station shall set the subfields corresponding to the  
4                         access overload classes of mobile stations which are to be  
5                         redirected to '1', and shall set the remaining subfields to '0'.

- 6   RETURN\_IF\_FAIL   -   Return if fail indicator.

7                         The base station shall set this field to '1' if the mobile station  
8                         is required to return to the system from which it is being  
9                         redirected upon failure to obtain service using the redirection  
10                        criteria specified in this message; otherwise, the base station  
11                        shall set this field to '0'.

- 12   DELETE\_TMSI   -   Delete TMSI indicator.

13                         The base station shall set this field to '1' if the mobile station,  
14                         which the corresponding REDIRECT\_ACCOLC subfield is set  
15                        to '1', is required to delete the TMSI assigned to the mobile  
16                        station; otherwise, the base station shall set this field to '0'.

- 17   EXCL\_P\_REV\_MS   -   Exclude redirection indicator.

If this message does not apply to mobile stations with MOB\_P\_REV greater than or equal to six, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.

5

6 The base station shall include one occurrence of the following three-field record:

- |                         |                                                                                                                                                                                                                                                     |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7 RECORD_TYPE           | <ul style="list-style-type: none"> <li>- Redirection record type.</li> </ul> <p>The base station shall set this field to the RECORD_TYPE value shown in Table 3.7.2.3.2.16-2 corresponding to the type of redirection specified by this record.</p> |
| 11 RECORD_LEN           | <ul style="list-style-type: none"> <li>- Redirection record length.</li> </ul> <p>The base station shall set this field to the number of octets in the type-specific fields of this redirection record.</p>                                         |
| 14 Type-specific fields | <ul style="list-style-type: none"> <li>- Redirection record type-specific fields.</li> </ul> <p>The base station shall include type-specific fields based on the RECORD_TYPE of this redirection record.</p>                                        |

17 If RECORD\_TYPE is equal to '00000001', the base station shall include the following fields:

18

| <b>Field</b>       | <b>Length (bits)</b> |
|--------------------|----------------------|
| EXPECTED_SID       | 15                   |
| IGNORE_CDMA        | 1                    |
| SYS_ORDERING       | 3                    |
| MAX_REDIRECT_DELAY | 5                    |

19

- |                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 20 EXPECTED_SID | <ul style="list-style-type: none"> <li>- Expected SID.</li> </ul> <p>If the base station is redirecting the mobile station to a specific system, the base station shall set this field to the SID of that system; otherwise, the base station shall set this field to 0.</p>                                                                                                                                                                                                                                                                                                                  |
| 25 IGNORE_CDMA  | <ul style="list-style-type: none"> <li>- Ignore CDMA Available indicator.</li> </ul> <p>The base station shall set this field to '1' to indicate that the mobile station is to ignore the <i>CDMA Capability Message</i> on the analog system to which it is being redirected. The base station shall set this field to '0' to indicate that the mobile station may discontinue service on the system to which it is being redirected if the mobile station receives a <i>CDMA Capability Message</i> with CDMA_AVAIL equal to '1', and the preferred mode of the mobile station is CDMA.</p> |
| 34 SYS_ORDERING | <ul style="list-style-type: none"> <li>- System ordering.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

1                   The base station shall set this field to the SYS\_ORDERING  
 2                   value shown in Table 3.7.2.3.2.16-3 corresponding to the  
 3                   order in which the mobile station is to attempt to obtain  
 4                   service on an analog system.

5     MAX\_REDIRECT\_DELAY - Maximum delay upon redirection.

6                   The base station shall set this field to the maximum delay  
 7                   time, in units of 8 second increments, to be used by mobile  
 8                   stations in the event of a global redirection to analog mode.  
 9                   This operation can be invoked to avoid overloading an  
 10                  underlying analog cell's reverse control channel.

11                  If RECORD\_TYPE is equal to '00000010', the base station shall include the following fields:

| <b>Subfield</b> | <b>Length (bits)</b> |
|-----------------|----------------------|
| BAND_CLASS      | 5                    |
| EXPECTED_SID    | 15                   |
| EXPECTED_NID    | 16                   |
| RESERVED        | 4                    |
| NUM_CHANS       | 4                    |

12                  NUM\_CHANS occurrences of the following field:

|           |    |
|-----------|----|
| CDMA_CHAN | 11 |
|-----------|----|

|          |                 |
|----------|-----------------|
| RESERVED | 0-7 (as needed) |
|----------|-----------------|

14                  BAND\_CLASS - Band class.

15                  The base station shall set this field to the CDMA band class,  
 16                  as specified in [30].

17                  EXPECTED\_SID - Expected SID.

18                  If the base station is redirecting the mobile station to a  
 19                  specific system, the base station shall set this field to the SID  
 20                  of that system; otherwise, the base station shall set this field  
 21                  to 0.

22                  EXPECTED\_NID - Expected NID.

23                  If the base station is redirecting the mobile station to a  
 24                  specific network, the base station shall set this field to the  
 25                  NID of that network; otherwise, the base station shall set this  
 26                  field to 65535.

27                  RESERVED - Reserved bits.

28                  The base station shall set this field to '0000'.

29                  NUM\_CHANS - Number of CDMA Channels.

1                   The base station shall set this field to the number of  
2                   occurrences of the CDMA\_CHAN field in this record.

3           CDMA\_CHAN    -    CDMA Channel number.

4                   For each CDMA Channel on which the mobile station is to  
5                   attempt to acquire a CDMA system, the base station shall  
6                   include one occurrence of this field specifying the associated  
7                   CDMA Channel number.

8           RESERVED     -    Reserved bits.

9                   The base station shall add reserved bits as needed in order to  
10                  make the length of the record equal to an integer number of  
11                  octets. The base station shall set these bits to '0'.

## 1    3.7.2.3.2.19 TMSI Assignment Message

2    MSG\_TAG: TASM

| <b>Field</b>  | <b>Length (bits)</b>              |
|---------------|-----------------------------------|
| RESERVED      | 5                                 |
| TMSI_ZONE_LEN | 4                                 |
| TMSI_ZONE     | $8 \times \text{TMSI\_ZONE\_LEN}$ |
| TMSI_CODE     | 32                                |
| TMSI_EXP_TIME | 24                                |

3

4    RESERVED    -    Reserved bits.

5                 The base station shall set this field to '00000'.

6    TMSI\_ZONE\_LEN    -    TMSI zone length.

7                 The base station shall set this field to the number of octets  
8                 included in the TMSI\_ZONE. The base station shall set this  
9                 field to a value in the range 1 to 8 inclusive.

10    TMSI\_ZONE    -    TMSI zone.

11                 The base station shall set this field to the TMSI zone number,  
12                 as specified in [27].

13    TMSI\_CODE    -    Temporary mobile station identity code.

14                 The base station shall set this field to the 32-bit TMSI code  
15                 assigned to the mobile station.16                 If the base station is to deassign the TMSI, the base station  
17                 shall set all the bits in this field to '1'.

18    TMSI\_EXP\_TIME    -    TMSI expiration time.

19                 The base station shall set this field to the System Time in the  
20                 units of  $80 \text{ ms} \times 2^{12}$  when the TMSI is to expire.

## 1    3.7.2.3.2.20 PACA Message

2    MSG\_TAG: PACAM

| <b>Field</b> | <b>Length (bits)</b> |
|--------------|----------------------|
| RESERVED     | 7                    |
| PURPOSE      | 4                    |
| Q_POS        | 8                    |
| PACA_TIMEOUT | 3                    |

3

- 4    RESERVED    -    Reserved bits.  
                     The base station shall set this field to '0000000'.
- 5    PURPOSE    -    Purpose of the *PACA Message*.  
                     The base station shall set this field to the appropriate  
                     PURPOSE code from Table 3.7.2.3.2.20-1 to indicate the  
                     purpose of the message.

10

11    **Table 3.7.2.3.2.20-1. Purpose of PACA Message**

| <b>PURPOSE<br/>(binary)</b> | <b>Meaning</b>                                                                                             |
|-----------------------------|------------------------------------------------------------------------------------------------------------|
| 0000                        | Indicates that the purpose of the message is to respond to an <i>Origination Message</i> .                 |
| 0001                        | Indicates that the purpose of the message is to provide the queue position of the PACA call.               |
| 0010                        | Indicates that the purpose of the message is to instruct the mobile station to re-originate the PACA call. |
| 0011                        | Indicates that the purpose of the message is to cancel the PACA call.                                      |
| 0100 – 1111                 | Reserved                                                                                                   |

12

- 13    Q\_POS    -    PACA queue position.  
                     If the PURPOSE field of this message is set to '0000' or '0001',  
                     the base station shall set this field to the queue position of the  
                     PACA call. If the queue position exceeds 255, the base station  
                     shall set this field to '11111111'. If the queue position is  
                     unknown or the PURPOSE field of this message is set to '0010'  
                     or '0011', the base station shall set this field to '00000000'.

1           PACA\_TIMEOUT   - PACA state timer duration.

2           The base station shall set this field to the PACA\_TIMEOUT  
3           value shown in Table 3.7.2.3.2.20-2 corresponding to the  
4           length of the PACA state timer to be used by the mobile  
5           stations.

6           **Table 3.7.2.3.2.20-2. Value of PACA State Timer**

| PACA_TIMEOUT<br>Value (binary) | Timer Length<br>(Minutes) |
|--------------------------------|---------------------------|
| 000                            | 1                         |
| 001                            | 2                         |
| 010                            | 5                         |
| 011                            | 10                        |
| 100                            | 20                        |
| 101                            | 30                        |
| 110                            | 45                        |
| 111                            | 60                        |

## 1 3.7.2.3.2.21 Extended Channel Assignment Message

2 MSG\_TAG: ECAM

| <b>Field</b>             | <b>Length (bits)</b>                       |
|--------------------------|--------------------------------------------|
| ASSIGN_MODE              | 3                                          |
| RESERVED_2               | 5                                          |
| Additional record fields | $8 \times$<br>(ADD_RECORD_LEN – 1) See [4] |

3

- 1 If ASSIGN\_MODE = '000', the additional record fields shall be:

|                     |         |
|---------------------|---------|
| FREQ_INCL           | 1       |
| DEFAULT_CONFIG      | 3       |
| BYPASS_ALERT_ANSWER | 1       |
| RESERVED            | 1       |
| NUM_PILOTS          | 3       |
| GRANTED_MODE        | 2       |
| FRAME_OFFSET        | 4       |
| ENCRYPT_MODE        | 2       |
| BAND_CLASS          | 0 or 5  |
| CDMA_FREQ           | 0 or 11 |

NUM\_PILOTS plus one occurrence of the following record:

|              |   |
|--------------|---|
| PILOT_PN     | 9 |
| PWR_COMB_IND | 1 |
| CODE_CHAN    | 8 |

|                            |               |
|----------------------------|---------------|
| FOR_FCH_RC                 | 5             |
| REV_FCH_RC                 | 5             |
| FPC_FCH_INIT_SETPT         | 8             |
| FPC_SUBCHAN_GAIN           | 5             |
| RLGAIN_ADJ                 | 4             |
| FPC_FCH_FER                | 5             |
| FPC_FCH_MIN_SETPT          | 8             |
| FPC_FCH_MAX_SETPT          | 8             |
| REV_FCH_GATING_MODE        | 1             |
| REV_PWR_CNTL_DELAY_INCL    | 0 or 1        |
| REV_PWR_CNTL_DELAY         | 0 or 2        |
| <u>D</u> _SIG_ENCRYPT_MODE | 0 or 3        |
| <u>USE_NEW_KEY</u>         | <u>0-or-4</u> |
| <u>ENC_KEY_SIZE</u>        | 0 or 3        |
| <u>KEY_SEQ</u>             | <u>0-or-4</u> |

|                                |                   |
|--------------------------------|-------------------|
| <u>C SIG ENCRYPT MODE INCL</u> | <u>1</u>          |
| <u>C SIG ENCRYPT MODE</u>      | <u>0 or 3</u>     |
| RESERVED                       | 0 – 7 (as needed) |

1

- 1 If ASSIGN\_MODE = '001', the additional record fields shall be:

|            |         |
|------------|---------|
| RESPOND    | 1       |
| FREQ_INCL  | 1       |
| BAND_CLASS | 0 or 5  |
| CDMA_FREQ  | 0 or 11 |
| NUM_PILOTS | 6       |

NUM\_PILOTS plus one occurrence of the following field:

|          |   |
|----------|---|
| PILOT_PN | 9 |
|----------|---|

|          |                   |
|----------|-------------------|
| RESERVED | 0 – 7 (as needed) |
|----------|-------------------|

2

- 3 If ASSIGN\_MODE = '010', the additional record fields shall be:

|                |   |
|----------------|---|
| RESPOND        | 1 |
| ANALOG_SYS     | 1 |
| USE_ANALOG_SYS | 1 |
| BAND_CLASS     | 5 |

4

- 5 If ASSIGN\_MODE = '011', the additional record fields shall be:

|              |    |
|--------------|----|
| SID          | 15 |
| VMAC         | 3  |
| ANALOG_CHAN  | 11 |
| SCC          | 2  |
| MEM          | 1  |
| AN_CHAN_TYPE | 2  |
| DSCC_MSB     | 1  |
| BAND_CLASS   | 5  |

6

- 1 If ASSIGN\_MODE = '100', the additional record fields shall be:

|                                |                                 |
|--------------------------------|---------------------------------|
| FREQ_INCL                      | 1                               |
| BAND_CLASS                     | 0 or 5                          |
| CDMA_FREQ                      | 0 or 11                         |
| BYPASS_ALERT_ANSWER            | 1                               |
| GRANTED_MODE                   | 2                               |
| DEFAULT_CONFIG                 | 3                               |
| FOR_RC                         | 5                               |
| REV_RC                         | 5                               |
| FRAME_OFFSET                   | 4                               |
| ENCRYPT_MODE                   | 2                               |
| FPC_SUBCHAN_GAIN               | 5                               |
| RLGAIN_ADJ                     | 4                               |
| NUM_PILOTS                     | 3                               |
| CH_IND                         | 2                               |
| CH_RECORD_LEN                  | 5                               |
| CH_RECORD_FIELDS               | $8 \times \text{CH_RECORD_LEN}$ |
| REV_FCH_GATING_MODE            | 1                               |
| REV_PWR_CNTL_DELAY_INCL        | 0 or 1                          |
| REV_PWR_CNTL_DELAY             | 0 or 2                          |
| <u>D_SIG_ENCRYPT_MODE</u>      | 0 or 3                          |
| <u>USE_NEW_KEY</u>             | <u>0 or 1</u>                   |
| <u>ENC_KEY_SIZE</u>            | 0 or 3                          |
| <u>KEY_SEQ</u>                 | <u>0 or 4</u>                   |
| <u>C_SIG_ENCRYPT_MODE_INCL</u> | <u>1</u>                        |
| <u>C_SIG_ENCRYPT_MODE</u>      | <u>0 or 3</u>                   |
| 3XFL_1XRL_INCL                 | 1                               |
| 1XRL_FREQ_OFFSET               | 0 or 2                          |
| RESERVED                       | 0 – 7 (as needed)               |

- 1 If CH\_IND = '01', the CH\_RECORD\_FIELDS shall be:

|                    |   |
|--------------------|---|
| FPC_FCH_INIT_SETPT | 8 |
| FPC_FCH_FER        | 5 |
| FPC_FCH_MIN_SETPT  | 8 |
| FPC_FCH_MAX_SETPT  | 8 |

NUM\_PILOTS plus one occurrence of the following record:

|                      |                       |
|----------------------|-----------------------|
| PILOT_PN             | 9                     |
| ADD_PILOT_REC_INCL   | 1                     |
| PILOT_REC_TYPE       | 0 or 3                |
| RECORD_LEN           | 0 or 3                |
| Type-specific fields | 0 or (8 × RECORD_LEN) |
| PWR_COMB_IND         | 1                     |
| CODE_CHAN_FCH        | 11                    |
| QOF_MASK_ID_FCH      | 2                     |

|                  |   |
|------------------|---|
| 3X_FCH_INFO_INCL | 1 |
|------------------|---|

NUM\_PILOTS plus one occurrence of the following record if 3X\_FCH\_INFO\_INCL is set to '1':

|                      |         |
|----------------------|---------|
| 3X_FCH_LOW_INCL      | 1       |
| QOF_MASK_ID_FCH_LOW  | 0 or 2  |
| CODE_CHAN_FCH_LOW    | 0 or 11 |
| 3X_FCH_HIGH_INCL     | 1       |
| QOF_MASK_ID_FCH_HIGH | 0 or 2  |
| CODE_CHAN_FCH_HIGH   | 0 or 11 |

|          |                   |
|----------|-------------------|
| RESERVED | 0 – 7 (as needed) |
|----------|-------------------|

- 1 If CH\_IND = '10', the CH\_RECORD\_FIELDS shall be:

|                     |   |
|---------------------|---|
| FPC_DCCH_INIT_SETPT | 8 |
| FPC_DCCH_FER        | 5 |
| FPC_DCCH_MIN_SETPT  | 8 |
| FPC_DCCH_MAX_SETPT  | 8 |

NUM\_PILOTS plus one occurrence of the following record:

|                      |                       |
|----------------------|-----------------------|
| PILOT_PN             | 9                     |
| ADD_PILOT_REC_INCL   | 1                     |
| PILOT_REC_TYPE       | 0 or 3                |
| RECORD_LEN           | 0 or 3                |
| Type-specific fields | 0 or (8 × RECORD_LEN) |
| PWR_COMB_IND         | 1                     |
| CODE_CHAN_DCCH       | 11                    |
| QOF_MASK_ID_DCCH     | 2                     |

|                   |   |
|-------------------|---|
| 3X_DCCH_INFO_INCL | 1 |
|-------------------|---|

NUM\_PILOTS plus one occurrence of the following record if 3X\_DCCH\_INFO\_INCL is set to '1':

|                       |         |
|-----------------------|---------|
| 3X_DCCH_LOW_INCL      | 1       |
| QOF_MASK_ID_DCCH_LOW  | 0 or 2  |
| CODE_CHAN_DCCH_LOW    | 0 or 11 |
| 3X_DCCH_HIGH_INCL     | 1       |
| QOF_MASK_ID_DCCH_HIGH | 0 or 2  |
| CODE_CHAN_DCCH_HIGH   | 0 or 11 |

|          |                   |
|----------|-------------------|
| RESERVED | 0 - 7 (as needed) |
|----------|-------------------|

- 1 If CH\_IND = '11', the CH\_RECORD\_FIELDS shall be:

|                     |   |
|---------------------|---|
| FPC_FCH_INIT_SETPT  | 8 |
| FPC_DCCH_INIT_SETPT | 8 |
| FPC_PRI_CHAN        | 1 |
| FPC_FCH_FER         | 5 |
| FPC_FCH_MIN_SETPT   | 8 |
| FPC_FCH_MAX_SETPT   | 8 |
| FPC_DCCH_FER        | 5 |
| FPC_DCCH_MIN_SETPT  | 8 |
| FPC_DCCH_MAX_SETPT  | 8 |

NUM\_PILOTS plus one occurrence of the following record:

|                      |                       |
|----------------------|-----------------------|
| PILOT_PN             | 9                     |
| ADD_PILOT_REC_INCL   | 1                     |
| PILOT_REC_TYPE       | 0 or 3                |
| RECORD_LEN           | 0 or 3                |
| Type-specific fields | 0 or (8 × RECORD_LEN) |
| PWR_COMB_IND         | 1                     |
| CODE_CHAN_FCH        | 11                    |
| QOF_MASK_ID_FCH      | 2                     |
| CODE_CHAN_DCCH       | 11                    |
| QOF_MASK_ID_DCCH     | 2                     |

|                  |   |
|------------------|---|
| 3X_FCH_INFO_INCL | 1 |
|------------------|---|

NUM\_PILOTS plus one occurrence of the following record if 3X\_FCH\_INFO\_INCL is set to '1':

|                     |         |
|---------------------|---------|
| 3X_FCH_LOW_INCL     | 1       |
| QOF_MASK_ID_FCH_LOW | 0 or 2  |
| CODE_CHAN_FCH_LOW   | 0 or 11 |

(continues on next page)

1

|                      |         |
|----------------------|---------|
| 3X_FCH_HIGH_INCL     | 1       |
| QOF_MASK_ID_FCH_HIGH | 0 or 2  |
| CODE_CHAN_FCH_HIGH   | 0 or 11 |

|                   |   |
|-------------------|---|
| 3X_DCCH_INFO_INCL | 1 |
|-------------------|---|

NUM\_PILOTS plus one occurrence of the following record if 3X\_DCCH\_INFO\_INCL is set to '1':

|                       |         |
|-----------------------|---------|
| 3X_DCCH_LOW_INCL      | 1       |
| QOF_MASK_ID_DCCH_LOW  | 0 or 2  |
| CODE_CHAN_DCCH_LOW    | 0 or 11 |
| 3X_DCCH_HIGH_INCL     | 1       |
| QOF_MASK_ID_DCCH_HIGH | 0 or 2  |
| CODE_CHAN_DCCH_HIGH   | 0 or 11 |

|          |                   |
|----------|-------------------|
| RESERVED | 0 – 7 (as needed) |
|----------|-------------------|

2

3

ASSIGN\_MODE - Assignment mode.

4

5

6

7

The base station shall set this field to the value shown in Table 3.7.2.3.2.21-1 corresponding to the assignment mode for this assignment.

8

**Table 3.7.2.3.2.21-1. Assignment Mode**

| Value<br>(binary)              | Assignment Mode                     |
|--------------------------------|-------------------------------------|
| 000                            | Traffic Channel Assignment          |
| 001                            | Paging Channel Assignment           |
| 010                            | Acquire Analog System               |
| 011                            | Analog Voice Channel Assignment     |
| 100                            | Enhanced Traffic Channel Assignment |
| All other values are reserved. |                                     |

9

10

11

12

RESERVED\_2 - Reserved bits.

The base station shall set this field to '00000'.

Additional record fields - Additional record fields.

1                   The additional record fields are determined by the value of  
2                   ASSIGN\_MODE, as described below.

3     If the ASSIGN\_MODE field is set to '000', the base station shall include the following fields:

4        FREQ\_INCL    - Frequency included indicator.

5                   If the BAND\_CLASS and CDMA\_FREQ fields are included in  
6                   this assignment record, the base station shall set this bit to  
7                   '1'. If the BAND\_CLASS and CDMA\_FREQ fields are not  
8                   included in this assignment record, the base station shall set  
9                   this bit to '0'.

10      DEFAULT\_CONFIG - Default Configuration.

11                   If the GRANTED\_MODE field is set to '00', the base station  
12                   shall set this field as specified in Table 3.7.2.3.2.21-2 to  
13                   indicate an initial multiplex option and radio configuration for  
14                   the Forward and Reverse Traffic Channels.

15                   If MOB\_P\_REV is less than six, the base station shall not set  
16                   this field to '100'.

**Table 3.7.2.3.2.21-2. Default Configuration**

| <b>Value<br/>(binary)</b>      | <b>Default Configuration</b>                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 000                            | Multiplex Option 1 and Radio Configuration 1 for both the Forward Traffic Channel and the Reverse Traffic Channel                                                                                                                                                                                                                                                                                                                                  |
| 001                            | Multiplex Option 2 and Radio Configuration 2 for both the Forward Traffic Channel and the Reverse Traffic Channel                                                                                                                                                                                                                                                                                                                                  |
| 010                            | Multiplex Option 1 and Radio Configuration 1 for the Forward Traffic channel; Multiplex Option 2 and Radio Configuration 2 for the Reverse Traffic channel                                                                                                                                                                                                                                                                                         |
| 011                            | Multiplex Option 2 and Radio Configuration 2 for the Forward Traffic channel; Multiplex Option 1 and Radio Configuration 1 for the Reverse Traffic channel                                                                                                                                                                                                                                                                                         |
| 100                            | FOR_FCH_RC or FOR_RC included in this message for the Forward Fundamental Channel or the Forward Dedicated Control Channel and REV_FCH_RC or REV_RC included in this message for the Reverse Fundamental or the Reverse Dedicated Control Channel. Use 20ms frames. Use Multiplex Option 1 for radio configurations that include the bit rate of 9600 bps; Use Multiplex Option 2 for radio configurations that include the bit rate of 14400 bps. |
| All other values are reserved. |                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

2

3

**BYPASS\_ALERT-**

4

**\_ANSWER**

- Bypass alert indicator.

5

6

7

8

9

If the base station has received a *Page Response Message* that specifies a packet data service option, and the mobile station is to bypass the *Waiting for Order Substate* and the *Waiting for Mobile Station Answer Substate*, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.

10

**RESERVED**

- Reserved bit.

11

The base station shall set this field to '0'.

- 1           NUM\_PILOTS    - Number of pilots in the Active Set.  
 2                          The base station shall set this field to number of pilots that  
 3                          are to be in the mobile station's Active Set on the Traffic  
 4                          Channel minus one. The base station shall set this field to  
 5                          the value in the range 0 to  $N_{6m}-1$  inclusive.
- 6           GRANTED\_MODE   - Granted mode.  
 7                          The base station shall set this field to '00' to indicate that the  
 8                          mobile station is to use an initial service configuration  
 9                          consisting of the multiplex option and radio configuration  
 10                         defined by the DEFAULT\_CONFIG field for the Forward and  
 11                         Reverse Traffic Channels, and to indicate that service  
 12                         negotiation may take place before the base station sends the  
 13                         first *Service Connect Message*.  
 14                          The base station shall set this field to '01' to indicate that the  
 15                          mobile station is to use an initial service configuration  
 16                          consisting of the default multiplex option ~~and transmission~~  
 17                         ~~rates corresponding to the service option requested by the~~  
 18                         ~~that is derived from the radio configuration corresponding to~~  
 19                         ~~Table 3.7.2.3.2.21-7~~  
 20                         ~~mobile station either in the Origination~~  
 21                         ~~Message or Page Response Message~~, and to indicate that  
 22                         service negotiation may take place before the base station  
 23                         sends the first *Service Connect Message*.  
 24                          The base station shall set this field to '10' to indicate that the  
 25                          mobile station is to use an initial service configuration  
 26                          consisting of the default multiplex option ~~and transmission~~  
 27                         ~~that is derived from the radio configuration corresponding to~~  
 28                         ~~Table 3.7.2.3.2.21-7~~  
 29                         ~~rates corresponding to the service option~~  
 30                         ~~requested by the mobile station either in the Origination~~  
 31                         ~~Message or Page Response Message~~, and to indicate that  
 32                         service negotiation is not to take place before the base station  
 33                         sends the first *Service Connect Message*.
- Table 3.7.2.3.2.21-7. Mapping between Multiplex Options and Radio Configurations**
- | <u>Multiplex Option</u>   | <u>Radio Configuration</u>                                                              |
|---------------------------|-----------------------------------------------------------------------------------------|
| <u>Multiplex Option 1</u> | <u>Forward link: RC1, RC3, RC4, RC6, or RC7</u><br><u>Reverse Link: RC1, RC3 or RC5</u> |
| <u>Multiplex Option2</u>  | <u>Forward link: RC2, RC5, RC 8, or RC9</u><br><u>Reverse Link: RC2, RC4 or RC 6</u>    |
- 34           FRAME\_OFFSET   - Frame offset.  
 35                          The Forward and Reverse Traffic Channel frames are delayed  
 36                          FRAME\_OFFSET  $\times$  1.25 ms relative to system timing (see [2]).

The base station shall set this field to the Forward and Reverse Traffic Channel frame offset.

- Message encryption mode.  
The base station shall set this field to the ENCRYPT\_MODE value shown in Table 3.7.2.3.2.8-2 corresponding to the encrypting mode that is to be used for signaling messages, as specified in 2.3.12.2.

- Band class.

If the FREQ\_INCL bit is set to '1', the base station shall set this field to the CDMA band class, as specified in [30], corresponding to the CDMA frequency assignment for the CDMA Channel containing the Forward Traffic Channel the mobile station is to use. If the FREQ\_INCL bit is set to '0', the base station shall omit this field.

- Frequency assignment.

If the FREQ\_INCL bit is set to '1', the base station shall set this field to the CDMA Channel number, in the specified CDMA band class, corresponding to the CDMA frequency assignment for the CDMA Channel containing the Forward Traffic Channel the mobile station is to use. If the FREQ\_INCL bit is set to '0', the base station shall omit this field.

The base station shall include NUM\_PILOTS plus one occurrence of the following three-field record, one for each member of the mobile station's Active Set on the Traffic Channel.

- PILOT\_PN** - Pilot PN sequence offset index.

The base station shall set this field to the pilot PN sequence offset for this pilot in units of 64 PN chips.

- Power control symbol combining indicator.

If the Forward Traffic Channel associated with this pilot will carry the same closed-loop power control subchannel bits as that of the previous pilot in this message, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'. For the first occurrence of this record in the message, the base station shall set this field to '0'.

- CODE\_CHAN** - Code channel index.

The base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the Forward Traffic Channel associated with this pilot. If Radio Configuration 1, 2, 3, or 5 (see 3.1.3.1.2 of [2]) is used, the base station shall set this field in the range 1 to 63 inclusive. If Radio Configuration 4, 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.

- Forward Fundamental Channel radio configuration

1                   The base station shall set this field to the radio configuration  
 2                   (see Table 3.7.2.3.2.21-3) to be used by the mobile station on  
 3                   the Forward Fundamental Channel before the first *Service*  
 4                   *Connect Message* is sent to the mobile station.

5                   If GRANTED\_MODE is set to '00', and DEFAULT\_CONFIG is  
 6                   not set to '100' (see Table 3.7.2.3.2.21-2), the base station  
 7                   shall set this field to either '00001' or '00010' (see Table  
 8                   3.7.2.3.2.21-3).

9                   REV\_FCH\_RC - Reverse Fundamental Channel radio configuration

10                  The base station shall set this field to the radio configuration  
 11                  (see Table 3.7.2.3.2.21-3) to be used by the mobile station on  
 12                  the Reverse Fundamental Channel before the first *Service*  
 13                  *Connect Message* is sent to the mobile station.

14                  If GRANTED\_MODE is set to '00', and DEFAULT\_CONFIG is  
 15                  not set to '100' (see Table 3.7.2.3.2.21-2), the base station  
 16                  shall set this field to either '00001' or '00010' (see Table  
 17                  3.7.2.3.2.21-3).

18                  **Table 3.7.2.3.2.21-3. Radio Configurations**

| Value<br>(binary)              | Radio Configuration |
|--------------------------------|---------------------|
| 00001                          | RC 1                |
| 00010                          | RC 2                |
| 00011                          | RC 3                |
| 00100                          | RC 4                |
| 00101                          | RC 5                |
| 00110                          | RC 6                |
| 00111                          | RC 7                |
| 01000                          | RC 8                |
| 01001                          | RC 9                |
| All other values are reserved. |                     |

19                  FPC\_FCH\_INIT\_SETPT - Initial Fundamental Channel outer loop  $E_b/N_t$  setpoint.

20                  The base station shall set this field to initial Fundamental  
 21                  Channel outer loop  $E_b/N_t$  setpoint, in units of 0.125 dB.

22                  FPC\_SUBCHAN\_GAIN - Forward power control subchannel relative gain.

The base station shall set FPC\_SUBCHAN\_GAIN equal to the power level of the forward link power control subchannel relative to the power level of 20 ms frames at a 9600 bps or 14400 bps rate of the Forward Fundamental Channel that the Forward Power Control Subchannel is punctured on. The base station shall set the value in units of 0.25 dB.

- RLGAIN\_ADJ - Reverse Traffic Channel power relative to access power.  
The base station shall set this field to adjust the initial Traffic Channel transmission power relative to the Access Channel or Enhanced Access Channel transmission power. The base station shall set this field as a two's complement signed binary number, in units of 1 dB.

- Fundamental Channel target Frame Error Rate.  
The base station shall set this field to the target Frame Error Rate on the Forward Fundamental Channel, as specified in Table 3.7.3.3.2.25-2.

- Minimum Fundamental Channel Outer Loop  $E_b/N_t$  setpoint.  
The base station shall set this field to minimum Fundamental Channel Outer Loop  $E_b/N_t$  setpoint, in units of 0.125 dB.

- Maximum Fundamental Channel Outer Loop  $E_b/N_t$  setpoint.  
The base station shall set this field to maximum Fundamental Channel Outer Loop  $E_b/N_t$  setpoint, in units of 0.125 dB.

REV\_FCH-

- Reverse eighth gating mode indicator.  
The base station shall set this field to ‘1’ if the mobile station is allowed to perform the reverse eighth gating mode where the  $1/8^{\text{th}}$  rate frames on the Reverse Fundamental Channel are gated off for 10 ms per frame (see 2.1.2.3.2 of [2]); otherwise, the base station shall set this field to ‘0’.

The base station shall not set this field to '1' if REV\_FCH\_GATING\_REQ included in the *Origination Message* or *Page Response Message* is set to '0'.

REV\_PWR-

- Reverse power control delay included indicator.  
If REV\_FCH\_GATING\_MODE is set to '0', the base station shall omit this field; otherwise, the base station shall include this field and set it as follows.

The base station shall set this field to '1' if REV\_PWR\_CNTL\_DELAY is included in this message; otherwise, the base station shall set this field to '0'.

If the REV\_FCH\_GATING\_MODE field in this message is set to '1' and the REV\_PWR\_CNTL\_DELAY INCL field in the *Extended System Parameters Message* or *MC-RR Parameters Message* is set to '0', the base station shall set this field to '1'.

- 1                   REV\_PWR-
- 2                   \_CNTL\_DELAY - The reverse power control delay.
- 3                   If REV\_PWR\_CNTL\_DELAY\_INCL is set to '0', the base station  
 4                   shall omit this field; otherwise, the base station shall include  
 5                   this field and set it as follows:
- 6                   The base station shall set this field to the closed-loop reverse  
 7                   power control delay minus one (the closed-loop reverse power  
 8                   control delay is the time between the end of a gated-on reverse  
 9                   PCG and the beginning of the reverse PCG where the  
 10                  corresponding feedback is sent on the Forward Power Control  
 11                  Subchannel, see 2.1.2.3.2 of [2]) used by the mobile station  
 12                  after handoff, in units of 1.25 ms.
- 13                  D\_SIG\_ENCRYPT\_MODE - General-Dedicated channel signaling encryption mode indicator.
- 14                  If ENCRYPT\_MODE is set to '11', the base station shall include  
 15                  this field and shall set it to the dedicated channel signaling  
 16                  message encryption mode, as shown in Table 3.7.4.5-1; otherwise  
 17                  the base station shall omit this field.
- 18                  USE\_NEW\_KEY Use new encryption key indication
- 19                  If ENCRYPT\_MODE is set to '10' or '11', the base station shall  
 20                  include this field. If this field is included, the base station shall  
 21                  set this field to '0' to indicate that the stored encryption key to be  
 22                  used by the mobile station. Otherwise, the base station shall set  
 23                  this field to '1' to indicate that the new encryption key to be used  
 24                  by the mobile station.
- 25                  ENC\_KEY\_SIZE - Encryption key size indication.
- 26                  If ENCRYPT\_MODE is set to '10' or '11' USE\_NEW\_KEY is included  
 27                  and is set to '0', the base station shall omit this field; otherwise,  
 28                  the base station shall include this field and shall set it to the  
 29                  encryption key size, as shown in Table 3.7.4.5-2; otherwise, the  
 30                  base station shall omit this field.
- 31                  KEY\_SEQ Encryption key sequence number.
- 32                  If USE\_NEW\_KEY is included and is set to '0', the base station  
 33                  shall include this field; otherwise, the base station shall omit this  
 34                  field. If this field is included, the base station shall set it to the  
 35                  encryption key sequence number to be used by the mobile  
 36                  station.
- 37                  C SIG ENCRYPT
- 38                  MODE INCL - Common channel signaling encryption mode included  
 39                  indicator.
- 40                  If P REV IN USE is less than seven, the base station shall set  
 41                  this field to '0'; otherwise, the base station shall set this field  
 42                  as follows:
- 43                  If common channel signaling encryption information is  
 44                  included in this message, the base station shall set this field  
 45                  to '1'; otherwise, the base station shall set this field to '0'.
- 46                  C SIG ENCRYPT

|    |                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                    |
|----|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | <b>MODE</b>                                                                                    | - Common channel signaling encryption mode indicator.                                                                                                                                                                                                                                                                                                                              |
| 2  |                                                                                                | If C SIG ENCRYPT MODE INCL is set to '1', the base station shall include this field and shall set it to the common channel signaling encryption mode, as shown in Table 3.7.4.5-1; otherwise, the base station shall omit this field.                                                                                                                                              |
| 3  |                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                    |
| 4  |                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                    |
| 5  |                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                    |
| 6  |                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                    |
| 7  | RESERVED                                                                                       | - Reserved bits.<br><br>The base station shall add reserved bits as needed in order to make the total length of the fields after the preceding ADD_RECORD_LEN field through this RESERVED field equal to an integer number of octets. The base station shall set these bits to '0'.                                                                                                |
| 8  |                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                    |
| 9  |                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                    |
| 10 |                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                    |
| 11 |                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                    |
| 12 |                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                    |
| 13 | If the ASSIGN_MODE field is set to '001', the base station shall include the following fields: |                                                                                                                                                                                                                                                                                                                                                                                    |
| 14 | RESPOND                                                                                        | - Respond on new Access Channel indicator.<br><br>If the mobile station is to retransmit an <i>Origination Message</i> or <i>Page Response Message</i> after processing this channel assignment, the base station shall set this field to '1'. The base station may set this field to '0' only in response to a <i>Page Response Message</i> .                                     |
| 15 |                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                    |
| 16 |                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                    |
| 17 |                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                    |
| 18 |                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                    |
| 19 |                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                    |
| 20 | FREQ_INCL                                                                                      | - Frequency included indicator.<br><br>If the BAND_CLASS and CDMA_FREQ fields are included in this assignment record, the base station shall set this bit to '1'. If the BAND_CLASS and CDMA_FREQ fields are not included in this assignment record, the base station shall set this bit to '0'.                                                                                   |
| 21 |                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                    |
| 22 |                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                    |
| 23 |                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                    |
| 24 |                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                    |
| 25 |                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                    |
| 26 | BAND_CLASS                                                                                     | - Band class.<br><br>If the FREQ_INCL bit is set to '1', the base station shall set this field to the CDMA band class, as specified in [30], corresponding to the CDMA frequency assignment for the CDMA Channel containing the Paging Channel the mobile station is to use. If the FREQ_INCL bit is set to '0', the base station shall omit this field.                           |
| 27 |                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                    |
| 28 |                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                    |
| 29 |                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                    |
| 30 |                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                    |
| 31 |                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                    |
| 32 |                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                    |
| 33 | CDMA_FREQ                                                                                      | - Frequency assignment.<br><br>If the FREQ_INCL bit is set to '1', the base station shall set this field to the CDMA Channel number, in the specified CDMA band class, corresponding to the CDMA frequency assignment for the CDMA Channel containing the Paging Channel the mobile station is to use. If the FREQ_INCL bit is set to '0', the base station shall omit this field. |
| 34 |                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                    |
| 35 |                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                    |
| 36 |                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                    |
| 37 |                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                    |
| 38 |                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                    |
| 39 |                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                    |

1           NUM\_PILOTS   - Number of pilots whose Paging Channel may be monitored.  
 2                          The base station shall set this field to the number of pilots  
 3                          whose Paging Channel may be monitored by the mobile  
 4                          station minus one. The base station shall set this field to the  
 5                          value in the range 0 to N<sub>8m</sub> – 1 inclusive.

6       The base station shall include NUM\_PILOTS plus one occurrence of the following field  
 7       record for each pilot whose Paging Channel may be monitored by the mobile station.

8           PILOT\_PN   - Pilot PN sequence offset index.  
 9                          The base station shall include one occurrence of this field for  
 10                         each base station whose Paging Channel may be monitored by  
 11                         the mobile station. For each occurrence, the base station  
 12                         shall set this field to the pilot PN sequence offset for a base  
 13                         station, in units of 64 PN chips. The base station having this  
 14                         pilot PN sequence offset should support a Primary Paging  
 15                         Channel with the same Paging Channel rate as the current  
 16                         base station.

17           RESERVED   - Reserved bits.  
 18                          The base station shall add reserved bits as needed in order to  
 19                         make the total length of the fields after the preceding  
 20                         ADD\_RECORD\_LEN field through this RESERVED field equal  
 21                         to an integer number of octets. The base station shall set  
 22                         these bits to '0'.

24       If the ASSIGN\_MODE field is set to '010', the base station shall include the following fields:

25           RESPOND   - Respond on analog control channel indicator.  
 26                          If the mobile station is to retransmit an *Origination Message* or  
 27                         *Page Response Message* on the analog control channel (see [6])  
 28                         after processing this channel assignment, the base station  
 29                         shall set this field to '1'. The base station may set this field to  
 30                         '0' only in response to a *Page Response Message*.

31           ANALOG\_SYS   - System indicator.  
 32                          If USE\_ANALOG\_SYS is equal to '0', the base station shall set  
 33                         this field to '0'; otherwise, the base station shall set this field  
 34                         to '0' if the mobile station is to use analog system A, or to '1' if  
 35                         the mobile station is to use analog system B.

36           USE\_ANALOG\_SYS   - Use analog system indicator.  
 37                          The base station shall set this field to '1' to direct the mobile  
 38                         station to the analog system specified by ANALOG\_SYS; otherwise,  
 39                         the base station shall set this field to '0'.

40           BAND\_CLASS   - Band class.  
 41                          The base station shall set this field according to values defined  
 42                         in [30].

1 If the ASSIGN\_MODE field is set to '011', the base station shall include the following fields:

- 2           SID     - System identification of the analog system.  
3                 The base station shall set this field to the system identification  
4                 of the analog system supporting the assigned voice channel  
5                 for this assignment (see [6]).
  - 6           VMAC    - Voice mobile station attenuation code.  
7                 The base station shall set this field to the mobile station  
8                 power level associated with the assigned voice channel for this  
9                 assignment (see [6]).
  - 10          ANALOG\_CHAN - Voice channel number.  
11                 The base station shall set this field to the voice channel  
12                 number for this assignment (see [6]).
  - 13          SCC      - SAT color code.  
14                 The base station shall set this field to the supervisory audio  
15                 tone color code associated with the assigned voice channel. If  
16                 the assignment is to a narrow analog channel, the base  
17                 station shall set this field to the two least significant bits of  
18                 the DSCC.
  - 19          MEM      - Message encryption mode indicator.  
20                 If analog control message encryption is to be enabled on the  
21                 assigned forward and reverse analog voice channels, the base  
22                 station shall set this bit to '1'; otherwise, the base station  
23                 shall set this bit to '0'.
  - 24          AN\_CHAN\_TYPE - Analog voice channel type.  
25                 The base station shall set this field to the analog channel type  
26                 as specified in Table 3.7.3.3.2.6-1. If the mobile station does  
27                 not have narrow analog capability, the base station shall set  
28                 this field to '00'.
  - 29          DSCC\_MSB   - Digital supervisory audio tone color code most significant bit.  
30                 The base station shall set this field to '0' when directing  
31                 handoff to a wide analog channel. The base station shall set  
32                 this field to the most significant bit of the DSCC when  
33                 directing handoff to a narrow analog channel.
  - 34          BAND\_CLASS - Band class.  
35                 The base station shall set this field according to values defined  
36                 in [30].
- 37 If the ASSIGN\_MODE field is set to '100', the base station shall include the following fields:
- 38          FREQ\_INCL - Frequency included indicator.  
39                 If the BAND\_CLASS and CDMA\_FREQ fields are included in  
40                 this assignment record, the base station shall set this bit to  
41                 '1'. If the BAND\_CLASS and CDMA\_FREQ fields are not  
42                 included in this assignment record, the base station shall set  
43                 this bit to '0'.

- 1           BAND\_CLASS    - Band class.  
 2                         If the FREQ\_INCL bit is set to '1', the base station shall set  
 3                     this field to the CDMA band class, as specified in [30],  
 4                     corresponding to the CDMA frequency assignment for the  
 5                     CDMA Channel containing the Forward Traffic Channel(s) the  
 6                     mobile station is to use. If the FREQ\_INCL bit is set to '0', the  
 7                     base station shall omit this field.
- 8           CDMA\_FREQ    - Frequency assignment.  
 9                         If the FREQ\_INCL bit is set to '0', the base station shall omit  
 10                  this field; otherwise, the base station shall set this field as  
 11                  follows:  
 12                         If FOR\_RC is set to a Radio Configuration associated with  
 13                     Spreading Rate 1, the FREQ\_INCL bit is set to '1', the base  
 14                     station shall set this field to the CDMA Channel number, in  
 15                     the specified CDMA band class, corresponding to the CDMA  
 16                     frequency assignment for the CDMA Channel containing the  
 17                     Forward Traffic Channel(s) the mobile station is to use. If  
 18                     FOR\_RC is set to a Radio Configuration associated with  
 19                     Spreading Rate 3, the base station shall set this field to the  
 20                     center SR3 frequency assignment containing the Forward  
 21                     Traffic Channel(s) the mobile station is to use.
- 22           BYPASS\_ALERT-  
 23                         ANSWER    - Bypass alert indicator.  
 24                         If the base station has received a *Page Response Message* that  
 25                     specifies a packet data service option, and the mobile station  
 26                     is to bypass the *Waiting for Order Substate* and the *Waiting for*  
 27                     *Mobile Station Answer Substate*, the base station shall set this  
 28                     field to '1'; otherwise, the base station shall set this field to '0'.
- 29           GRANTED\_MODE   - Granted mode.  
 30                         The base station shall set this field to '00' to indicate that the  
 31                     mobile station is to use an initial service configuration  
 32                     consisting of the multiplex option and Radio Configuration  
 33                     defined by the DEFAULT\_CONFIG field for the Forward and  
 34                     Reverse Traffic channels, and to indicate that service  
 35                     negotiation may take place before the base station sends the  
 36                     first *Service Connect Message*.  
 37                         The base station shall set this field to '01' to indicate that the  
 38                     mobile station is to use an initial service configuration  
 39                     consisting of the default multiplex option that is derived from  
the radio configuration corresponding to Table 3.7.2.3.2.21-7  
and transmission rates corresponding to the service option  
requested by the mobile station either in the Origination  
Message or Page Response Message, and to indicate that  
 40                     service negotiation may take place before the base station  
 41                     sends the first *Service Connect Message*.

The base station shall set this field to '10' to indicate that the mobile station is to use an initial service configuration consisting of the default multiplex option that is derived from the radio configuration corresponding to Table 3.7.2.3.2.21-7 and transmission rates corresponding to the service option requested by the mobile station either in the Origination Message or Page Response Message, and to indicate that service negotiation is not to take place before the base station sends the first *Service Connect Message*.

- |    |                  |                                                                                                                                                                                                                                                                                |
|----|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10 | DEFAULT_CONFIG   | - Default Configuration.                                                                                                                                                                                                                                                       |
| 11 |                  | If the GRANTED_MODE field is set to '00', the base station shall set this field as specified in Table 3.7.2.3.2.21-2 to indicate an initial multiplex option and Radio Configuration for the Forward and Reverse Traffic Channels.                                             |
| 12 |                  |                                                                                                                                                                                                                                                                                |
| 13 |                  |                                                                                                                                                                                                                                                                                |
| 14 |                  |                                                                                                                                                                                                                                                                                |
| 15 | FOR_RC           | - Forward Traffic Channel radio configuration.                                                                                                                                                                                                                                 |
| 16 |                  | The base station shall set this field to the radio configuration (see Table 3.7.2.3.2.21-3) to be used by the mobile station on the Forward Traffic (Fundamental and Dedicated Control) Channel before the first <i>Service Connect Message</i> is sent to the mobile station. |
| 17 |                  |                                                                                                                                                                                                                                                                                |
| 18 |                  |                                                                                                                                                                                                                                                                                |
| 19 |                  |                                                                                                                                                                                                                                                                                |
| 20 |                  |                                                                                                                                                                                                                                                                                |
| 21 |                  | If GRANTED_MODE is set to '00', and DEFAULT_CONFIG is not set to '100' (see Table 3.7.2.3.2.21-2), the base station shall set this field to either '00001' or '00010' (see Table 3.7.2.3.2.21-3).                                                                              |
| 22 |                  |                                                                                                                                                                                                                                                                                |
| 23 |                  |                                                                                                                                                                                                                                                                                |
| 24 |                  |                                                                                                                                                                                                                                                                                |
| 25 | REV_RC           | - Reverse Traffic Channel radio configuration.                                                                                                                                                                                                                                 |
| 26 |                  | The base station shall set this field to the radio configuration (see Table 3.7.2.3.2.21-3) to be used by the mobile station on the Reverse Traffic (Fundamental and Dedicated Control) Channel before the first <i>Service Connect Message</i> is sent to the mobile station. |
| 27 |                  |                                                                                                                                                                                                                                                                                |
| 28 |                  |                                                                                                                                                                                                                                                                                |
| 29 |                  |                                                                                                                                                                                                                                                                                |
| 30 |                  |                                                                                                                                                                                                                                                                                |
| 31 |                  | If GRANTED_MODE is set to '00', and DEFAULT_CONFIG is not set to '100' (see Table 3.7.2.3.2.21-2), the base station shall set this field to either '0001' or '0010' (see Table 3.7.2.3.2.21-3).                                                                                |
| 32 |                  |                                                                                                                                                                                                                                                                                |
| 33 |                  |                                                                                                                                                                                                                                                                                |
| 34 |                  |                                                                                                                                                                                                                                                                                |
| 35 | FRAME_OFFSET     | - Frame offset.                                                                                                                                                                                                                                                                |
| 36 |                  | The Forward and Reverse Traffic Channel frames are delayed FRAME_OFFSET × 1.25 ms relative to system timing (see [2]).                                                                                                                                                         |
| 37 |                  |                                                                                                                                                                                                                                                                                |
| 38 |                  |                                                                                                                                                                                                                                                                                |
| 39 |                  |                                                                                                                                                                                                                                                                                |
| 40 | ENCRYPT_MODE     | - Message encryption mode.                                                                                                                                                                                                                                                     |
| 41 |                  | The base station shall set this field to the ENCRYPT_MODE value shown in Table 3.7.2.3.2.8-2 corresponding to the encrypting mode that is to be used for signaling messages, as specified in 2.3.12.2.                                                                         |
| 42 |                  |                                                                                                                                                                                                                                                                                |
| 43 |                  |                                                                                                                                                                                                                                                                                |
| 44 |                  |                                                                                                                                                                                                                                                                                |
| 45 | FPC_SUBCHAN_GAIN | - Forward Power Control Subchannel relative gain.                                                                                                                                                                                                                              |

The base station shall set FPC\_SUBCHAN\_GAIN equal to the power level of the forward link power control subchannel relative to the power level of 20 ms frames at a 9600 bps or 14400 bps rate on the Forward Fundamental Channel or the Forward Dedicated Control Channel that the Forward Power Control Subchannel is punctured on. The base station shall set the value in units of 0.25 dB.

- RLGAIN\_ADJ** - Reverse Traffic Channel power relative to access power.  
The base station shall set this field to adjust the initial Traffic Channel transmission power relative to the Access Channel or Enhanced Access Channel transmission power. The base station shall set this field as a two's complement signed binary number, in units of 1 dB.

**NUM\_PILOTS** - Number of pilots in the Active Set.  
The base station shall set this field to number of pilots that are to be in the mobile station's Active Set on the Traffic Channel minus one. The base station shall set this field to the value in the range 0 to  $N_{6m}-1$  inclusive.

**CH\_IND** - Channel indicator.  
The base station shall set this field as shown in Table 3.7.2.3.2.21-4.

**Table 3.7.2.3.2.21-4. Channel Indicator**

| <b>Value<br/>(Binary)</b> | <b>Channels Being Assigned</b>                         |
|---------------------------|--------------------------------------------------------|
| 00                        | Reserved                                               |
| 01                        | Fundamental Channel only                               |
| 10                        | Dedicated Control Channel only                         |
| 11                        | Both Fundamental Channel and Dedicated Control Channel |

- |                      |                                                                                                                                                    |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| CH_RECORD_LEN        | - Channel record length.<br>The base station shall set this field to the number of octets in the CH_RECORD_FIELDS included in this channel record. |
| CH_RECORD_FIELDS     | - Channel record fields.<br>The channel record fields are determined by the value of CH_IND, as described below.                                   |
| REV_FCH-_GATING_MODE | - Reverse eighth gating mode indicator.                                                                                                            |

The base station shall set this field to '1' if the mobile station is allowed to perform the reverse eighth gating mode where the  $1/8^{\text{th}}$  rate frames on the Reverse Fundamental Channel are gated off for 10 ms per frame (see 2.1.2.3.2 of [2]); otherwise, the base station shall set this field to '0'.

The base station shall not set this field to '1' if REV\_FCH\_GATING\_REQ included in the *Origination Message* or *Page Response Message* is set to '0'.

REV\_PWR-

- Reverse power control delay included indicator.

If REV\_FCH\_GATING\_MODE is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows.

The base station shall set this field to '1' if REV\_PWR\_CNTL\_DELAY is included in this message; otherwise, the base station shall set this field to '0'.

If the REV\_FCH\_GATING\_MODE field in this message is set to '1' and the REV\_PWR\_CNTL\_INCL field in the *Extended System Parameters Message* is set to '0', the base station shall set this field to '1'.

REV\_PWR-

- The reverse power control delay.

If REV\_PWR\_CNTL\_DELAY\_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

The base station shall set this field to the closed-loop reverse power control delay minus one (the closed-loop reverse power control delay is the time between the end of a gated-on reverse PCG and the beginning of the reverse PCG where the corresponding feedback is sent on the Forward Power Control Subchannel, see 2.1.2.3.2 of [2]) used by the mobile station after handoff, in units of 1.25 ms.

D\_SIG\_ENCRYPT\_MODE - Dedicated channelGeneral encryption mode indicator.

If ENCRYPT\_MODE is set to '11', the base station shall include this field and shall set it to the dedicated channel signaling messageencryption-encryption mode, as shown in Table 3.7.4.5-1; otherwise the base station shall omit this field.

## USE\_NEW\_KEY

~~Use new encryption key indication~~

If ENCRYPT\_MODE is set to '10' or '11', the base station shall include this field. If this field is included, the base station shall set this field to '0' to indicate that the stored encryption key to be used by the mobile station. Otherwise, the base station shall set this field to '1' to indicate that the new encryption key to be used by the mobile station.

1        **ENC\_KEY\_SIZE** - Encryption key size indication.  
 2        If ENCRYPT\_MODE is set to '10' or '11' USE\_NEW\_KEY is included  
 3        and is set to '0', the base station shall omit this field; otherwise,  
 4        the base station shall include this field and shall set it to the  
 5        encryption key size, as shown in Table 3.7.4.5-2; otherwise, the  
 6        base station shall omit this field.

7        **KEY\_SEQ** Encryption key sequence number.  
 8        If USE\_NEW\_KEY is included and is set to '0', the base station  
 9        shall include this field; otherwise, the base station shall omit this  
 10      field. If this field is included, the base station shall set it to the  
 11      encryption key sequence number to be used by the mobile  
 12      station.

**C SIG ENCRYPT**

14      **MODE\_INCL** - Common channel signaling encryption mode included  
 15      indicator.

16      If P\_REV IN USE is less than seven, the base station shall set  
 17      this field to '0'; otherwise, the base station shall set this field  
 18      as follows:

19      If common channel signaling encryption information is  
 20      included in this message, the base station shall set this field  
 21      to '1'; otherwise, the base station shall set this field to '0'.

**C SIG ENCRYPT**

23      **MODE** - Common channel signaling encryption mode indicator.

24      If C SIG ENCRYPT MODE INCL is set to '1', the base station  
 25      shall include this field and shall set it to the common channel  
 26      signaling encryption mode, as shown in Table 3.7.4.5-1;  
 27      otherwise, the base station shall omit this field.

**3XFL\_1XRL\_INCL** - 3X Forward Link and 1X Reverse Link indicator.

30      The base station shall set this field to '1' if the base station is  
 31      assigning 3X traffic channel on the Forward Link and 1X  
 32      traffic channel on the Reverse Link; otherwise, the base  
 33      station shall set this field to '0'.

**1XRL\_-**

35      **FREQ\_OFFSET** - 1X Reverse Link frequency offset.

36      If 3XFL\_1XRL\_INCL is set to '0', the base station shall omit  
 37      this field; otherwise, the base station shall set this field as  
 38      follows:

39      The base station shall set this field to the value shown in  
 40      Table 3.7.2.3.2.21-5 corresponding to the frequency offset of  
 41      the 1X reverse link.

**Table 3.7.2.3.2.21-5. 1X Reverse Link Frequency Offset**

| <b>1XRL_FREQ_OFFSET<br/>(Binary)</b> | <b>1X Reverse Link<br/>frequency offset</b>      |
|--------------------------------------|--------------------------------------------------|
| 00                                   | The Reverse Link is on the lowest SR3 frequency  |
| 01                                   | The Reverse Link is on the center SR3 frequency  |
| 10                                   | The Reverse Link is on the highest SR3 frequency |
| 11                                   | Reserved                                         |

- RESERVED - Reserved bits.  
The base station shall set all the bits of this field to '0' to make the entire record octet-aligned.
- If the CH\_IND field is set to '01', the base station shall include the following fields:
- FPC\_FCH\_INIT\_SETPT - Initial Fundamental Channel outer loop  $E_b/N_t$  setpoint.  
The base station shall set this field to initial Fundamental Channel outer loop  $E_b/N_t$  setpoint, in units of 0.125 dB.
  - FPC\_FCH\_FER - Fundamental channel target Frame Error Rate.  
The base station shall set this field to the target Frame Error Rate on the Forward Fundamental Channel, as specified in Table 3.7.3.3.2.25-2.
  - FPC\_FCH\_MIN\_SETPT - Minimum Fundamental Channel Outer Loop  $E_b/N_t$  setpoint.  
The base station shall set this field to minimum Fundamental Channel Outer Loop  $E_b/N_t$  setpoint, in units of 0.125 dB.
  - FPC\_FCH\_MAX\_SETPT - Maximum Fundamental Channel Outer Loop  $E_b/N_t$  setpoint.  
The base station shall set this field to maximum Fundamental Channel Outer Loop  $E_b/N_t$  setpoint, in units of 0.125 dB.
- The base station shall include NUM\_PILOTS plus one occurrence of the following record, one for each member of the mobile station's Active Set on the Traffic Channel.
- PILOT\_PN - Pilot PN sequence offset index.  
The base station shall set this field to the pilot PN sequence offset for this pilot in units of 64 PN chips.

- 1 ADD\_PILOT\_REC\_INCL - Additional pilot information included indicator.  
 2 The base station shall set this field to ‘1’ if additional pilot  
 3 information listed in PILOT\_REC\_TYPE and RECORD\_LEN  
 4 fields are included. The base station shall set this field to ‘0’ if  
 5 the corresponding pilot is the common pilot and there is no  
 6 additional pilot information included.
- 7 PILOT\_REC\_TYPE - Pilot record type.  
 8 If ADD\_PILOT\_REC\_INCL is set to ‘1’, the base station shall  
 9 set this field to the PILOT\_REC\_TYPE value shown in Table  
 10 3.7.2.3.2.21-6 corresponding to the type of Pilot Record  
 11 specified by this record.  
 12 If ADD\_PILOT\_REC\_INCL is set to ‘0’, the base station shall  
 13 omit this field.

**Table 3.7.2.3.2.21-6. Pilot Record Types**

| Description                                  | PILOT_REC_TYPE<br>(binary) |
|----------------------------------------------|----------------------------|
| 1X Common Pilot with Transmit Diversity      | 000                        |
| 1X Auxiliary Pilot                           | 001                        |
| 1X Auxiliary Pilot with Transmit Diversity   | 010                        |
| 3X Common Pilot                              | 011                        |
| 3X Auxiliary Pilot                           | 100                        |
| All other PILOT_REC_TYPE values are reserved |                            |

- 16  
 17 RECORD\_LEN - Pilot record length.  
 18 If ADD\_PILOT\_REC\_INCL is set to ‘1’, the base station shall  
 19 set this field to the number of octets in the type-specific fields  
 20 of this pilot record.  
 21 If ADD\_PILOT\_REC\_INCL is set to ‘0’, the base station shall  
 22 omit this field.
- 23 Type-specific fields - Pilot record type-specific fields.  
 24 If ADD\_PILOT\_REC\_INCL is set to ‘1’, the base station shall  
 25 include type-specific fields based on the PILOT\_REC\_TYPE of  
 26 this pilot record as described in 3.7.6.1.  
 27 If ADD\_PILOT\_REC\_INCL is set to ‘0’, the base station shall  
 28 omit this field.
- 29  
 30 PWR\_COMB\_IND - Power control symbol combining indicator.

1                   If the Forward Fundamental Traffic Channel associated with  
 2                   this pilot will carry the same closed-loop power control  
 3                   subchannel bits as that of the previous pilot in this message,  
 4                   the base station shall set this field to '1'; otherwise, the base  
 5                   station shall set this field to '0'. For the first occurrence of  
 6                   this record in the message, the base station shall set this field  
 7                   to '0'.

- 8                   CODE\_CHAN\_FCH     - Code channel index for the Fundamental Channel.  
 9                   If FOR\_RC is set to a Radio Configuration associated with  
 10                  Spreading Rate 1, the base station shall set this field to the  
 11                  code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that  
 12                  the mobile station is to use on the Forward Fundamental  
 13                  Channel associated with this pilot. If FOR\_RC is set to a Radio  
 14                  Configuration associated with Spreading Rate 3, the base  
 15                  station shall set this field to the code channel index that the  
 16                  mobile station is to use on the Forward Fundamental on the  
 17                  center SR3 frequency.

18                  If Radio Configuration 1, 2, 3, or 5 (see 3.1.3.1.2 of [2]) is  
 19                  used, the base station shall set this field in the range 1 to 63  
 20                  inclusive. If Radio Configuration 4, 6 or 8 is used, the base  
 21                  station shall set this field in the range 1 to 127 inclusive. If  
 22                  Radio Configuration 7 or 9 is used, the base station shall set  
 23                  this field in the range 1 to 255 inclusive.

- 24                  QOF\_MASK\_ID\_FCH - Quasi-Orthogonal Function Mask Identifier for the  
 25                  Fundamental Channel.  
 26                  If FOR\_RC is set to a Radio Configuration associated with  
 27                  Spreading Rate 1, the base station shall set this field to the  
 28                  quasi-orthogonal function mask identifier (see Table  
 29                  3.1.3.1.12-2 of [2]) that the mobile station is to use on the  
 30                  Forward Fundamental Channel associated with this pilot. If  
 31                  FOR\_RC is set to a Radio Configuration associated with  
 32                  Spreading Rate 3, the base station shall set this field to the  
 33                  quasi-orthogonal function mask identifier that the mobile  
 34                  station is to use on the Forward Fundamental Channel on the  
 35                  center SR3 frequency.

- 36                  3X\_FCH\_INFO\_INCL - 3X FCH information included indicator.  
 37                  If the 3X Fundamental Channel information is included, the  
 38                  base station shall set this field to '1'; otherwise, the base  
 39                  station shall set this field to '0'.

40                  The base station shall include NUM\_PILOTS plus one occurrence of the following record if  
 41                  3X\_FCH\_INFO\_INCL is set to '1'. The base station shall use the same order for the following  
 42                  fields as is used for the PILOT\_PN fields listed in this message.

- 43                  3X\_FCH\_LOW\_INCL - FCH code channel on the lowest SR3 frequency included  
 44                  indicator.  
 45                  If the FCH on the lowest SR3 frequency has a different code  
 46                  channel than the FCH on the center SR3 frequency, the base  
 47                  station shall set this field to '1'; otherwise, the base station  
 48                  shall set this field to '0'.

- 1           QOF\_MASK\_ID-
- 2            \_FCH\_LOW    - QOF index for the FCH on the lowest SR3 frequency.
- 3            If 3X\_FCH\_LOW\_INCL is set to '0', the base station shall omit  
4            this field; otherwise, the base station shall set this field as  
5            follows:
- 6            The base station shall set this field to the index of the Quasi-  
7            orthogonal function (see Table 3.1.3.1.12-2 of [2])  
8            corresponding to the QOF index for the FCH on the lowest  
9            SR3 frequency.
- 10          CODE\_CHAN-
- 11           \_FCH\_LOW    - Code channel for the FCH on the lowest SR3 frequency.
- 12           If 3X\_FCH\_LOW\_INCL is set to '0', the base station shall omit  
13           this field; otherwise, the base station shall set this field as  
14           follows:
- 15           The base station shall set this field to the code channel index  
16           (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is  
17           to use on the FCH on the lowest SR3 frequency. If Radio  
18           Configuration 6 or 8 is used, the base station shall set this  
19           field in the range 1 to 127 inclusive. If Radio Configuration 7  
20           or 9 is used, the base station shall set this field in the range 1  
21           to 255 inclusive.
- 22          3X\_FCH\_HIGH\_INCL - FCH code channel on the highest SR3 frequency included  
23           indicator.
- 24           If the FCH on the highest SR3 frequency has a different code  
25           channel than the FCH on the center SR3 frequency, the base  
26           station shall set this field to '1'; otherwise, the base station  
27           shall set this field to '0'.
- 28          QOF\_MASK\_ID-
- 29           \_FCH\_HIGH    - QOF index for the FCH on the highest SR3 frequency.
- 30           If 3X\_FCH\_HIGH\_INCL is set to '0', the base station shall omit  
31           this field; otherwise, the base station shall set this field as  
32           follows:
- 33           The base station shall set this field to the index of the Quasi-  
34           orthogonal function (see Table 3.1.3.1.12-2 of [2])  
35           corresponding to the QOF index for the FCH on the highest  
36           SR3 frequency.
- 37          CODE\_CHAN-
- 38           \_FCH\_HIGH    - Code channel for the FCH on the highest SR3 frequency.
- 39           If 3X\_FCH\_HIGH\_INCL is set to '0', the base station shall omit  
40           this field; otherwise, the base station shall set this field as  
41           follows:

The base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the FCH on the highest SR3 frequency. If Radio Configuration 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.

- RESERVED** - Reserved bits.  
The base station shall add reserved bits as needed in order to make the total length of the fields after the preceding CH\_RECORD\_LEN field through this RESERVED field equal to an integer number of octets. The base station shall set these bits to '0'.

If the CH\_IND field is set to '10', the base station shall include the following fields:

- |                     |   |                                                                                                                                                                                                         |
|---------------------|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FPC_DCCH_INIT_SETPT | - | Initial Dedicated Control Channel outer loop $E_b/N_t$ setpoint.<br><br>The base station shall set this field to initial Dedicated Control Channel outer loop $E_b/N_t$ setpoint, in units of 0.125 dB. |
| FPC_DCCH_FER        | - | Dedicated Control Channel target Frame Error Rate.<br><br>The base station shall set this field to the target Frame Error Rate on the Dedicated Control Channel, as specified in Table 3.7.3.3.2.25-2.  |
| FPC_DCCH_MIN_SETPT  | - | Minimum Dedicated Control Channel Outer Loop $E_b/N_t$ setpoint.<br><br>The base station shall set this field to minimum Dedicated Control Channel Outer Loop $E_b/N_t$ setpoint, in units of 0.125 dB. |
| FPC_DCCH_MAX_SETPT  | - | Maximum Dedicated Control Channel Outer Loop $E_b/N_t$ setpoint.<br><br>The base station shall set this field to maximum Dedicated Control Channel Outer Loop $E_b/N_t$ setpoint, in units of 0.125 dB. |

The base station shall include NUM\_PILOTS plus one occurrence of the following three-field record for each member of the mobile station's Active Set on the Traffic Channel.

- |                    |                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PILOT_PN           | <ul style="list-style-type: none"> <li>- Pilot PN sequence offset index.</li> </ul> <p>The base station shall set this field to the pilot PN sequence offset for this pilot in units of 64 PN chips.</p>                                                                                                                                                                                                 |
| ADD_PILOT_REC_INCL | <ul style="list-style-type: none"> <li>- Additional pilot information included indicator.</li> </ul> <p>The base station shall set this field to '1' if additional pilot information listed in PILOT_REC_TYPE and RECORD_LEN fields are included. The base station shall set this field to '0' if the corresponding pilot is the common pilot and there is no additional pilot information included.</p> |
| PILOT_REC_TYPE     | <ul style="list-style-type: none"> <li>- Pilot record type.</li> </ul>                                                                                                                                                                                                                                                                                                                                   |

If ADD\_PILOT\_REC\_INCL is set to ‘1’, the base station shall set this field to the PILOT\_REC\_TYPE value shown in Table 3.7.2.3.2.21-6 corresponding to the type of Pilot Record specified by this record.

If ADD\_PILOT\_REC\_INCL is set to ‘0’, the base station shall omit this field.

RECORD\_LEN - Pilot record length.  
If ADD\_PILOT\_REC\_INCL is set to ‘1’, the base station shall set this field to the number of octets in the type-specific fields of this pilot record.

If ADD\_PILOT\_REC\_INCL is set to ‘0’, the base station shall omit this field.

Type-specific fields - Pilot record type-specific fields.  
If ADD\_PILOT\_REC\_INCL is set to ‘1’, the base station shall include type-specific fields based on the PILOT\_REC\_TYPE of this pilot record.  
If ADD\_PILOT\_REC\_INCL is set to ‘0’, the base station shall omit this field as described in 3.7.6.1.

PWR\_COMB\_IND - Power control symbol combining indicator.  
If the Forward Dedicated Control Traffic Channel associated with this pilot will carry the same closed-loop power control subchannel bits as that of the previous pilot in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’. For the first occurrence of this record in the message, the base station shall set this field to ‘0’.

CODE\_CHAN\_DCCH - Code channel index for the Dedicated Control Channel.  
If FOR\_RC is set to a Radio Configuration associated with Spreading Rate 1, the base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the Forward Dedicated Control Channel associated with this pilot. If FOR\_RC is set to a Radio Configuration associated with Spreading Rate 3, the base station shall set this field to the code channel index that the mobile station is to use on the Forward Dedicated Control Channel on the center SR3 frequency.

If Radio Configuration 1, 2, 3, or 5 (see 3.1.3.1.2 of [2]) is used, the base station shall set this field in the range 1 to 63 inclusive. If Radio Configuration 4, 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.

QOF\_MASK\_ID\_DCCH - Quasi-Orthogonal Function Mask Identifier for the Dedicated Control Channel.

If FOR\_RC is set to a Radio Configuration associated with Spreading Rate 1, the base station shall set this field to the quasi-orthogonal function mask identifier (see Table 3.1.3.1.12-2 of [2]) that the mobile station is to use on the Forward Dedicated Control Channel associated with this pilot. If FOR\_RC is set to a Radio Configuration associated with Spreading Rate 3, the base station shall set this field to the quasi-orthogonal function mask identifier (see Table 3.1.3.1.12-2 of [2]) that the mobile station is to use on the Forward Dedicated Control Channel on the center SR3 frequency.

- 12     3X\_DCCH\_INFO\_INCL    – 3X DCCH information included indicator.  
 13                          If the 3X Dedicated Control Channel information is included,  
 14                          the base station shall set this field to ‘1’; otherwise, the base  
 15                          station shall set this field to ‘0’.

16     The base station shall include NUM\_PILOTS plus one occurrence of the following record if  
 17     3X\_DCCH\_INFO\_INCL is set to ‘1’. The base station shall use the same order for the  
 18     following fields as is used for the PILOT\_PN fields listed in this message.

- 19     3X\_DCCH\_LOW\_INCL    – DCCH code channel on the lowest SR3 frequency included  
 20                          indicator.  
 21                          If the DCCH on the lowest SR3 frequencies has a different  
 22                          code channel than the DCCH on the center SR3 frequency,  
 23                          the base station shall set this field to ‘1’; otherwise, the base  
 24                          station shall set this field to ‘0’.

- 25       QOF\_MASK\_ID-  
 26                \_DCCH\_LOW    – QOF index for the DCCH on the lowest SR3 frequency.  
 27                          If 3X\_DCCH\_LOW\_INCL is set to ‘0’, the base station shall  
 28                          omit this field; otherwise, the base station shall set this field  
 29                          as follows:  
 30                          The base station shall set this field to the index of the Quasi-  
 31                          orthogonal function (see Table 3.1.3.1.12-2 of [2])  
 32                          corresponding to the QOF index for the DCCH on the lowest  
 33                          SR3 frequency.

- 34       CODE\_CHAN-  
 35                \_DCCH\_LOW    – Code channel for the DCCH on the lowest SR3 frequency.  
 36                          If 3X\_DCCH\_LOW\_INCL is set to ‘0’, the base station shall  
 37                          omit this field; otherwise, the base station shall set this field  
 38                          as follows:  
 39                          The base station shall set this field to the code channel index  
 40                          (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is  
 41                          to use on the DCCH on the lowest SR3 frequency. If Radio  
 42                          Configuration 6 or 8 is used, the base station shall set this  
 43                          field in the range 1 to 127 inclusive. If Radio Configuration 7  
 44                          or 9 is used, the base station shall set this field in the range 1  
 45                          to 255 inclusive.

- 46     3X\_DCCH\_HIGH\_INCL    – DCCH code channel on the highest SR3 frequency included  
 47                          indicator.

If the DCCH on the highest SR3 frequencies has a different code channel than the DCCH on the center SR3 frequency, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

## QOF\_MASK\_ID-

- \_DCCH\_HIGH - QOF index for the DCCH on the highest SR3 frequency.  
If 3X\_DCCH\_HIGH\_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2] corresponding to the QOF index for the DCCH on the highest SR3 frequency.

## CODE\_CHAN-

- \_DCCH\_HIGH - Code channel for the DCCH on the highest SR3 frequency.  
If 3X\_DCCH\_HIGH\_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the DCCH on the highest SR3 frequency. If Radio Configuration 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.

## RESERVED

- Reserved bits.

The base station shall add reserved bits as needed in order to make the total length of the fields after the preceding CH\_RECORD\_LEN field through this RESERVED field equal to an integer number of octets. The base station shall set these bits to ‘0’.

If the CH\_IND field is set to ‘11’, the base station shall include the following fields:

- FPC\_FCH\_INIT\_SETPT - Initial Fundamental Channel outer loop  $E_b/N_t$  setpoint.  
The base station shall set this field to initial Fundamental Channel outer loop  $E_b/N_t$  setpoint, in units of 0.125 dB.
- FPC\_DCCH\_INIT\_SETPT - Initial Dedicated Control Channel outer loop  $E_b/N_t$  setpoint.  
The base station shall set this field to initial Dedicated Control Channel outer loop  $E_b/N_t$  setpoint, in units of 0.125 dB.
- FPC\_PRI\_CHAN - Power Control Subchannel indicator.

The base station shall set this field to '0' if the mobile station is to perform the primary inner loop estimation on the received Forward Fundamental Channel and the base station is to multiplex the Power Control Subchannel on the Forward Fundamental Channel. The base station shall set this field to '1' if the mobile station is to perform the primary inner loop estimation on the received Forward Dedicated Control Channel and the base station is to multiplex the Power Control Subchannel on the Forward Dedicated Control Channel.

- |    |                                                                                                                                                                                   |   |                                                                                                                                                                                                     |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11 | FPC_FCH_FER                                                                                                                                                                       | - | Fundamental channel target Frame Error Rate.<br>The base station shall set this field to the target Frame Error Rate on the Forward Fundamental Channel.                                            |
| 12 |                                                                                                                                                                                   |   |                                                                                                                                                                                                     |
| 13 |                                                                                                                                                                                   |   |                                                                                                                                                                                                     |
| 14 | FPC_FCH_MIN_SETPT                                                                                                                                                                 | - | Minimum Fundamental Channel Outer Loop $E_b/N_t$ setpoint.<br>The base station shall set this field to minimum Fundamental Channel Outer Loop $E_b/N_t$ setpoint, in units of 0.125 dB.             |
| 15 |                                                                                                                                                                                   |   |                                                                                                                                                                                                     |
| 16 |                                                                                                                                                                                   |   |                                                                                                                                                                                                     |
| 17 | FPC_FCH_MAX_SETPT                                                                                                                                                                 | - | Maximum Fundamental Channel Outer Loop $E_b/N_t$ setpoint.<br>The base station shall set this field to maximum Fundamental Channel Outer Loop $E_b/N_t$ setpoint, in units of 0.125 dB.             |
| 18 |                                                                                                                                                                                   |   |                                                                                                                                                                                                     |
| 19 |                                                                                                                                                                                   |   |                                                                                                                                                                                                     |
| 20 | FPC_DCCH_FER                                                                                                                                                                      | - | Dedicated Control Channel target Frame Error Rate.<br>The base station shall set this field to the target Frame Error Rate on the Dedicated Control Channel.                                        |
| 21 |                                                                                                                                                                                   |   |                                                                                                                                                                                                     |
| 22 |                                                                                                                                                                                   |   |                                                                                                                                                                                                     |
| 23 | FPC_DCCH_MIN_SETPT                                                                                                                                                                | - | Minimum Dedicated Control Channel Outer Loop $E_b/N_t$ setpoint.<br>The base station shall set this field to minimum Dedicated Control Channel Outer Loop $E_b/N_t$ setpoint, in units of 0.125 dB. |
| 24 |                                                                                                                                                                                   |   |                                                                                                                                                                                                     |
| 25 |                                                                                                                                                                                   |   |                                                                                                                                                                                                     |
| 26 |                                                                                                                                                                                   |   |                                                                                                                                                                                                     |
| 27 |                                                                                                                                                                                   |   |                                                                                                                                                                                                     |
| 28 | FPC_DCCH-                                                                                                                                                                         |   |                                                                                                                                                                                                     |
| 29 | _MAX_SETPT                                                                                                                                                                        | - | Maximum Dedicated Control Channel Outer Loop $E_b/N_t$ setpoint.<br>The base station shall set this field to maximum Dedicated Control Channel Outer Loop $E_b/N_t$ setpoint, in units of 0.125 dB. |
| 30 |                                                                                                                                                                                   |   |                                                                                                                                                                                                     |
| 31 |                                                                                                                                                                                   |   |                                                                                                                                                                                                     |
| 32 |                                                                                                                                                                                   |   |                                                                                                                                                                                                     |
| 33 |                                                                                                                                                                                   |   |                                                                                                                                                                                                     |
| 34 | The base station shall include NUM_PILOTS plus one occurrence of the following three-field record, one for each member of the mobile station's Active Set on the Traffic Channel. |   |                                                                                                                                                                                                     |
| 35 |                                                                                                                                                                                   |   |                                                                                                                                                                                                     |
| 36 | PILOT_PN                                                                                                                                                                          | - | Pilot PN sequence offset index.<br>The base station shall set this field to the pilot PN sequence offset for this pilot in units of 64 PN chips.                                                    |
| 37 |                                                                                                                                                                                   |   |                                                                                                                                                                                                     |
| 38 |                                                                                                                                                                                   |   |                                                                                                                                                                                                     |
| 39 | ADD_PILOT_REC_INCL                                                                                                                                                                | - | Additional pilot information included indicator.                                                                                                                                                    |

The base station shall set this field to '1' if additional pilot information listed in PILOT\_REC\_TYPE and RECORD\_LEN fields are included. The base station shall set this field to '0' if the corresponding pilot is the common pilot and there is no additional pilot information included.

- |                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>PILOT_REC_TYPE</b> | <ul style="list-style-type: none"> <li>- Pilot record type.</li> </ul> <p>If ADD_PILOT_REC_INCL is set to ‘1’, the base station shall set this field to the PILOT_REC_TYPE value shown in Table 3.7.2.3.2.21-6 corresponding to the type of Pilot Record specified by this record.</p> <p>If ADD_PILOT_REC_INCL is set to ‘0’, the base station shall omit this field.</p>                                                                                                                                                                                                                                          |
| <b>RECORD_LEN</b>     | <ul style="list-style-type: none"> <li>- Pilot record length.</li> </ul> <p>If ADD_PILOT_REC_INCL is set to ‘1’, the base station shall set this field to the number of octets in the type-specific fields of this pilot record.</p> <p>If ADD_PILOT_REC_INCL is set to ‘0’, the base station shall omit this field.</p>                                                                                                                                                                                                                                                                                            |
| Type-specific fields  | <ul style="list-style-type: none"> <li>- Pilot record type-specific fields.</li> </ul> <p>If ADD_PILOT_REC_INCL is set to ‘1’, the base station shall include type-specific fields based on the PILOT_REC_TYPE of this pilot record as described in 3.7.6.1.</p> <p>If ADD_PILOT_REC_INCL is set to ‘0’, the base station shall omit this field.</p>                                                                                                                                                                                                                                                                |
| <b>PWR_COMB_IND</b>   | <ul style="list-style-type: none"> <li>- Power control symbol combining indicator.</li> </ul> <p>If the Forward Fundamental Traffic Channel associated with this pilot will carry the same closed-loop power control subchannel bits as that of the previous pilot in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’. For the first occurrence of this record in the message, the base station shall set this field to ‘0’.</p>                                                                                                                |
| <b>CODE_CHAN_FCH</b>  | <ul style="list-style-type: none"> <li>- Code channel index for the Fundamental Channel.</li> </ul> <p>If FOR_RC is set to a Radio Configuration associated with Spreading Rate 1, the base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the Forward Channel associated with this pilot. If FOR_RC is set to a Radio Configuration associated with Spreading Rate 3, the base station shall set this field to the code channel index that the mobile station is to use on the Forward Channel on the center SR3 frequency.</p> |

1                   If Radio Configuration 1, 2, 3, or 5 (see 3.1.3.1.2 of [2]) is  
 2                   used, the base station shall set this field in the range 1 to 63  
 3                   inclusive. If Radio Configuration 4, 6 or 8 is used, the base  
 4                   station shall set this field in the range 1 to 127 inclusive. If  
 5                   Radio Configuration 7 or 9 is used, the base station shall set  
 6                   this field in the range 1 to 255 inclusive.

7       QOF\_MASK\_ID\_FCH - Quasi-Orthogonal Function Mask Identifier for the  
 8                   Fundamental Channel.

9                   If FOR\_RC is set to a Radio Configuration associated with  
 10                  Spreading Rate 1, the base station shall set this field to the  
 11                  quasi-orthogonal function mask identifier (see Table  
 12                  3.1.3.1.12-2 of [2]) that the mobile station is to use on the  
 13                  Forward Fundamental Channel associated with this pilot. If  
 14                  FOR\_RC is set to a Radio Configuration associated with  
 15                  Spreading Rate 3, the base station shall set this field to the  
 16                  quasi-orthogonal function mask identifier that the mobile  
 17                  station is to use on the Forward Fundamental Channel on the  
 18                  center SR3 frequency.

19       CODE\_CHAN\_DCCH - Code channel index for the Dedicated Control channel.

20                  If FOR\_RC is set to a Radio Configuration associated with  
 21                  Spreading Rate 1, the base station shall set this field to the  
 22                  code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]), in the  
 23                  range of 1 to 255 inclusive, that the mobile station is to use  
 24                  on the Dedicated Control Channel associated with this pilot. If  
 25                  FOR\_RC is set to a Radio Configuration associated with  
 26                  Spreading Rate 3, the base station shall set this field to the  
 27                  code channel index in the range of 1 to 255 inclusive, that the  
 28                  mobile station is to use on the Dedicated Control Channel on  
 29                  the center SR3 frequency.

30                  If Radio Configuration 1, 2, 3, or 5 (see 3.1.3.1.2 of [2]) is  
 31                  used, the base station shall set this field in the range 1 to 63  
 32                  inclusive. If Radio Configuration 4, 6 or 8 is used, the base  
 33                  station shall set this field in the range 1 to 127 inclusive. If  
 34                  Radio Configuration 7 or 9 is used, the base station shall set  
 35                  this field in the range 1 to 255 inclusive.

36       QOF\_MASK\_ID\_DCCH - Quasi-Orthogonal Function Mask Identifier for the Dedicated  
 37                  Control Channel.

38                  If FOR\_RC is set to a Radio Configuration associated with  
 39                  Spreading Rate 1, the base station shall set this field to the  
 40                  quasi-orthogonal function mask identifier (see Table  
 41                  3.1.3.1.12-2 of [2]) that the mobile station is to use on the  
 42                  Forward Dedicated Control Channel associated with this pilot. If  
 43                  FOR\_RC is set to a Radio Configuration associated with  
 44                  Spreading Rate 1, the base station shall set this field to the  
 45                  quasi-orthogonal function mask identifier that the mobile  
 46                  station is to use on the Forward Dedicated Control Channel  
 47                  on the center SR3 frequency.

48       3X\_FCH\_INFO\_INCL - 3X FCH information included indicator.

If the 3X Fundamental Channel information is included, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.

The base station shall include NUM\_PILOTS plus one occurrence of the following record if 3X\_FCH\_INFO\_INCL is set to '1'. The base station shall use the same order for the following fields as is used for the PILOT\_PN fields listed in this message.

3X\_FCH\_LOW\_INCL - FCH code channel on the lowest SR3 frequency included indicator.

If the FCH on the lowest SR3 frequencies has a different code channel than the FCH on the center SR3 frequency, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.

QOF\_MASK\_ID-

\_FCH\_LOW - QOF index for the FCH on the lowest SR3 frequency.

If 3X\_FCH\_LOW\_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]) corresponding to the QOF index for the FCH on the lowest SR3 frequency.

CODE\_CHAN-

\_FCH\_LOW - Code channel for the FCH on the lowest SR3 frequency.

If 3X\_FCH\_LOW\_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the FCH on the lowest SR3 frequency. If Radio Configuration 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.

3X\_FCH\_HIGH\_INCL - FCH code channel on the highest SR3 frequency included indicator.

If the FCH on the highest SR3 frequencies has a different code channel than the FCH on the center SR3 frequency, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.

QOF\_MASK\_ID-

\_FCH\_HIGH - QOF index for the FCH on the highest SR3 frequency.

If 3X\_FCH\_HIGH\_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2] corresponding to the QOF index for the FCH on the highest SR3 frequency.

## CODE\_CHAN-

- Code channel for the FCH on the highest SR3 frequency.  
If 3X\_FCH\_HIGH\_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the FCH on the highest SR3 frequency. If Radio Configuration 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.

### 3X\_DCCH\_INFO\_INCL

- 3X DCCH information included indicator.  
If the 3X Dedicated Control Channel information is included, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.

The base station shall include NUM\_PILOTS plus one occurrence of the following record if 3X\_DCCH\_INFO\_INCL is set to '1'. The base station shall use the same order for the following fields as is used for the PILOT PN fields listed in this message.

### 3X\_DCCH\_LOW\_INCL

- DCCH code channel on the lowest SR3 frequency included indicator.  
If the DCCH on the lowest SR3 frequencies has a different code channel than the DCCH on the center SR3 frequency, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.

OOE MASK ID

- QOF index for the DCCH on the lowest SR3 frequency.  
If `3X_DCCH_LOW_INCL` is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]) corresponding to the QOF index for the DCCH on the lowest SR3 frequency.

CODE CHAN-

- Code channel for the DCCH on the lowest SR3 frequency.  
If `3X_DCCH_LOW_INCL` is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the DCCH on the lowest SR3 frequency. If Radio Configuration 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.

- 3X\_DCCH\_HIGH\_INCL** – DCCH code channel on the highest SR3 frequency included indicator.

If the DCCH on the highest SR3 frequencies has a different code channel than the DCCH on the center SR3 frequency, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.

QOF\_MASK\_ID-

- QOF index for the DCCH on the highest SR3 frequency.  
If 3X\_DCCH\_HIGH\_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2] corresponding to the QOF index for the DCCH on the highest SR3 frequency.

CODE CHAN-

- Code channel for the DCCH on the highest SR3 frequency.  
If `3X_DCCH_HIGH_INCL` is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the DCCH on the highest SR3 frequency. If Radio Configuration 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.

**RESERVED**

- Reserved bits.  
The base station shall add reserved bits as needed in order to make the total length of the fields after the preceding CH\_RECORD\_LEN field through this RESERVED field equal to an integer number of octets. The base station shall set these bits to '0'.

## 1 3.7.2.3.2.22 General Neighbor List Message

2 MSG\_TAG: GNLM

| Field                | Length (bits) |
|----------------------|---------------|
| PILOT_PN             | 9             |
| CONFIG_MSG_SEQ       | 6             |
| PILOT_INC            | 4             |
| NGHBR_SRCH_MODE      | 2             |
| NGHBR_CONFIG_PN_INCL | 1             |
| FREQ_FIELDS_INCL     | 1             |
| USE_TIMING           | 1             |
| GLOBAL_TIMING_INCL   | 0 or 1        |
| GLOBAL_TX_DURATION   | 0 or 4        |
| GLOBAL_TX_PERIOD     | 0 or 7        |
| NUM_NGHBR            | 6             |

NUM\_NGHBR occurrences of the following record:

|                   |         |
|-------------------|---------|
| NGHBR_CONFIG      | 0 or 3  |
| NGHBR_PN          | 0 or 9  |
| SEARCH_PRIORITY   | 0 or 2  |
| SRCH_WIN_NGHBR    | 0 or 4  |
| FREQ_INCL         | 0 or 1  |
| NGHBR_BAND        | 0 or 5  |
| NGHBR_FREQ        | 0 or 11 |
| TIMING_INCL       | 0 or 1  |
| NGHBR_TX_OFFSET   | 0 or 7  |
| NGHBR_TX_DURATION | 0 or 4  |
| NGHBR_TX_PERIOD   | 0 or 7  |

(continues on next page)

1

| Field            | Length (bits) |
|------------------|---------------|
| NUM_ANALOG_NGHBR | 3             |

NUM\_ANALOG\_NGHBR occurrences of the following record:

|            |   |
|------------|---|
| BAND_CLASS | 5 |
| SYS_A_B    | 2 |

|                  |   |
|------------------|---|
| SRCH_OFFSET_INCL | 1 |
|------------------|---|

NUM\_NGHBR occurrences of the following record:

|                      |                            |
|----------------------|----------------------------|
| ADD_PILOT_REC_INCL   | 1                          |
| NGHBR_PILOT_REC_TYPE | 0 or 3                     |
| RECORD_LEN           | 0 or 3                     |
| Type-specific fields | 0 or $8 \times$ RECORD_LEN |
| SRCH_OFFSET_NGHBR    | 0 or 3                     |

|               |   |
|---------------|---|
| BCCH_IND_INCL | 1 |
|---------------|---|

NUM\_NGHBR occurrences of the following field:

|              |        |
|--------------|--------|
| BCCH_SUPPORT | 0 or 1 |
|--------------|--------|

2

3 PILOT\_PN - Pilot PN sequence offset index.  
 4 The base station shall set this field to the pilot PN sequence  
 5 offset for this base station, in units of 64 PN chips.

6 CONFIG\_MSG\_SEQ - Configuration message sequence number.  
 7 The base station shall set this field to CONFIG\_SEQ  
 8 (see 3.6.2.2).

9 PILOT\_INC - Pilot PN sequence offset index increment.  
 10 A mobile station searches for Remaining Set pilots at pilot PN  
 11 sequence index values that are multiples of this value.

12 The base station shall set this field to the pilot PN sequence  
 13 increment, in units of 64 PN chips, that mobile stations are to  
 14 use for searching the Remaining Set. The base station should  
 15 set this field to the largest increment such that the pilot PN  
 16 sequence offsets of all its neighbor base stations are integer  
 17 multiples of that increment.

18 The base station shall set this field to a value in the range 1 to  
 19 15 inclusive.

20 NGHBR\_SRCH\_MODE - Search mode.

1           The base station shall set this field to the value shown in  
 2           Table 3.7.2.3.2.22-1 corresponding to the search mode.  
 3

**Table 3.7.2.3.2.22-1. Search Mode Field**

| <b>Value<br/>(binary)</b> | <b>Description</b>                     |
|---------------------------|----------------------------------------|
| 00                        | No search priorities or search windows |
| 01                        | Search priorities                      |
| 10                        | Search windows                         |
| 11                        | Search windows and search priorities   |

- 5
- 6           NGHBR\_CONFIG-
- 7            \_PN\_INCL    - Neighbor configuration and PN offset included.  
 8                     If neighbor configuration and PN offset fields are included in  
 9                     this message, the base station shall set this field to '1';  
 10                  otherwise, the base station shall set this field to '0'.
- 11          FREQ\_FIELDS\_INCL - Frequency fields included.  
 12                  If frequency fields are included in this message, the base  
 13                  station shall set this field to '1'; otherwise, the base station  
 14                  shall set this field to '0'.
- 15          USE\_TIMING    - Use timing indicator.  
 16                  If base station timing information is included for neighbor  
 17                  base stations, the base station shall set this field to '1';  
 18                  otherwise, the base station shall set this field to '0'.
- 19          GLOBAL\_TIMING-  
 20            \_INCL      - Global timing included.  
 21                  If USE\_TIMING is set to '1', the base station shall include the  
 22                  field GLOBAL\_TIMING\_INCL and set this field as described  
 23                  below; otherwise, the base station shall omit this field.  
 24                  If base station timing information is included globally for all  
 25                  neighbor base stations with TIMING\_INCL equal to '1', the  
 26                  base station shall set this field to '1'; otherwise, the base  
 27                  station shall set this field to '0'.
- 28          GLOBAL\_TX-  
 29            \_DURATION - Global neighbor transmit time duration.  
 30                  If GLOBAL\_TIMING\_INCL is included and is set to '1', the base  
 31                  station shall include the field GLOBAL\_TX\_DURATION and  
 32                  shall set this field as described below; otherwise, the base  
 33                  station shall omit this field.

The base station shall set this field to the duration of the base station transmit window, during each period, in units of 80 ms. The base station should set this field to a value of 3 or greater.

GLOBAL\_TX-

- \_PERIOD** - Global neighbor transmit time period.

If GLOBAL\_TIMING\_INCL is included and is set to '1', the base station shall include the field GLOBAL\_TX\_PERIOD and shall set this field as described below; otherwise, the base station shall omit this field.

The base station shall set this field to duration of the period, in units of 80 ms.

- NUM\_NGHBR** - Number of neighbor pilot PN sequences.

The base station shall set this field to the number of neighbors included in the message.

The base station shall include one occurrence of the following record for each pilot that a mobile station is to place in its Neighbor Set. The base station shall use the same order for the following record in this message as is used for pilots which are listed in the *Neighbor List Message* or *Extended Neighbor List Message*. Specifically, the  $i^{th}$  occurrence of the following record shall correspond the  $i^{th}$  pilot in the *Neighbor List Message* or in the *Extended Neighbor List Message*.

- NGHBR\_CONFIG** - Neighbor configuration.

If NGHBR\_CONFIG\_PN\_INCL = '1', the base station shall set this field to the value shown in Table 3.7.2.3.2.22-2 corresponding to the configuration of this neighbor; otherwise, the base station shall omit this field.

1

**Table 3.7.2.3.2.22-2. Neighbor Configuration Field**

| <b>Value<br/>(binary)</b> | <b>Neighbor Configuration</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 000                       | <p>The neighbor base station has the same number of frequencies having Paging Channels as the current base station.</p> <p>The neighbor base station has a CDMA frequency assignment corresponding to this current CDMA frequency assignment with the same number of Paging Channels, and the neighbor CDMA frequency is given as follows:</p> <ul style="list-style-type: none"> <li>• If FREQ_INCL equals ‘0’ for this record, this corresponding CDMA frequency assignment is the current CDMA frequency assignment.</li> <li>• If FREQ_INCL equals ‘1’ for this record, this corresponding CDMA frequency assignment is given by NGHBR_BAND and NGHBR_FREQ.</li> </ul> <p>The position of the neighbor CDMA frequency assignment in the <i>CDMA Channel List Message</i> or the <i>Extended CDMA Channel List Message</i> transmitted by the neighbor base station is the same as the position of this current CDMA frequency assignment in the <i>CDMA Channel List Message</i> or the <i>Extended CDMA Channel List Message</i> transmitted by the current base station.</p>                                                                                                                  |
| 001                       | <p>The neighbor base station has the same number of frequencies having Paging Channels as the current base station.</p> <p>The neighbor base station has a CDMA frequency assignment corresponding to this current CDMA frequency assignment but possibly with a different number of Paging Channels, and the neighbor CDMA frequency is given as follows:</p> <ul style="list-style-type: none"> <li>• If FREQ_INCL equals ‘0’ for this record, this corresponding CDMA frequency assignment is the current CDMA frequency assignment.</li> <li>• If FREQ_INCL equals ‘1’ for this record, this corresponding CDMA frequency assignment is given by NGHBR_BAND and NGHBR_FREQ.</li> </ul> <p>The position of the neighbor CDMA frequency assignment in the <i>CDMA Channel List Message</i> or the <i>Extended CDMA Channel List Message</i> transmitted by the neighbor base station is the same as the position of this current CDMA frequency assignment in the <i>CDMA Channel List Message</i> or the <i>Extended CDMA Channel List Message</i> transmitted by the current base station.</p> <p>This corresponding neighbor CDMA frequency assignment does have a Primary Paging Channel.</p> |

|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 010     | <p>The neighbor base station may have a different number of frequencies having Paging Channels as the current base station.</p> <p>The neighbor base station has a Primary Paging Channel on the following CDMA frequency:</p> <ul style="list-style-type: none"> <li>• If FREQ_INCL equals '0' for this record, the neighbor base station has a Primary Paging Channel on the first CDMA Channel listed in the <i>CDMA Channel List Message</i> or the <i>Extended CDMA Channel List Message</i> transmitted by the current base station.</li> <li>• If FREQ_INCL equals '1' for this record, the neighbor base station has a Primary Paging Channel on the CDMA frequency assignment given by NGHBR_BAND and NGHBR_FREQ.</li> </ul> |
| 011     | <p>The neighbor base station configuration is unknown but the neighbor base station has a Pilot Channel on the following frequency:</p> <ul style="list-style-type: none"> <li>• If FREQ_INCL equals '0' for this record, the neighbor CDMA frequency assignment is the same as the current CDMA frequency assignment and has a Pilot Channel.</li> <li>• If FREQ_INCL equals '1' for this record, the CDMA frequency assignment given by NGHBR_BAND and NGHBR_FREQ has a Pilot Channel.</li> </ul>                                                                                                                                                                                                                                   |
| 100-111 | Reserved.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

- 1  
2           NGHBR\_PN    - Neighbor pilot PN sequence offset index.  
3           If NGHBR\_CONFIG\_PN\_INCL = '1', the base station shall set  
4           this field to the pilot PN sequence offset for this neighbor, in  
5           units of 64 PN chips; otherwise, the base station shall omit  
6           this field.  
7           SEARCH\_PRIORITY   - Pilot Channel search priority.  
8           If NGHBR\_SRCH\_MODE = '01' or NGHBR\_SRCH\_MODE = '11',  
9           then the base station shall set this field to the search priority  
10          for the Pilot Channel corresponding to NGHBR\_PN. The base  
11          station shall set the search priority as shown in Table  
12          3.7.2.3.2.22-3. If NGHBR\_SRCH\_MODE is set to any other  
13          value, the base station shall omit this field.  
14

**Table 3.7.2.3.2.22-3. Search Priority Field**

| <b>Value<br/>(binary)</b> | <b>Search Priority</b> |
|---------------------------|------------------------|
| 00                        | Low                    |
| 01                        | Medium                 |
| 10                        | High                   |
| 11                        | Very High              |

- 1
- 2
- 3 SRCH\_WIN\_NGHBR - Neighbor pilot channel search window size.
- 4 If NGHBR\_SRCH\_MODE = '10' or '11', then the base station
- 5 shall set this field to the value shown in Table 2.6.6.2.1-1
- 6 corresponding to the search window size to be used by mobile
- 7 stations for this neighbor. If NGHBR\_SRCH\_MODE is set to
- 8 any other value, the base station shall omit this field.
- 9 FREQ\_INCL - Frequency included indicator.
- 10 If FREQ\_FIELDS\_INCL is set to '0', the base station shall omit
- 11 this field; otherwise, the base station shall set this field as
- 12 follows:
- 13 If the NGHBR\_BAND and NGHBR\_FREQ fields are included
- 14 for this neighbor base station, the base station shall set this
- 15 bit to '1'. If the NGHBR\_BAND and NGHBR\_FREQ fields are
- 16 not included in this assignment record, the base station shall
- 17 set this bit to '0'.
- 18 NGHBR\_BAND - Neighbor band class.
- 19 If the FREQ\_INCL bit is included and is set to '1', the base
- 20 station shall set this field to the CDMA band class, as
- 21 specified in [30], corresponding to the CDMA frequency
- 22 assignment for the CDMA Channel containing the Paging
- 23 Channel the mobile station is to search. If the FREQ\_INCL bit
- 24 is omitted or is set to '0', the base station shall omit this field.
- 25 NGHBR\_FREQ - Neighbor frequency assignment.
- 26 If the FREQ\_INCL bit is omitted or is set to '0', the base
- 27 station shall omit this field.
- 28 If the FREQ\_INCL bit is included and is set to '1' and the
- 29 corresponding neighbor has a 1X neighbor pilot record type,
- 30 the base station shall set this field to the CDMA Channel
- 31 number, in the specified CDMA band class, corresponding to
- 32 the CDMA frequency assignment for the CDMA Channel
- 33 containing the Paging Channel the mobile station is to search.

If the FREQ\_INCL bit is included and is set to ‘1’ and the corresponding neighbor has a 3X neighbor pilot record type, the base station shall set this field to the CDMA Channel number, in the specified CDMA band class, corresponding to the center SR3 frequency assignment containing the Paging Channel the mobile station is to search.

TIMING\_INCL - Timing included indicator.  
If USE\_TIMING is set to ‘1’, the base station shall include the field TIMING\_INCL and set this field as described below; otherwise, the base station shall omit this field.

If base station timing information is included for this neighbor base station, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

NGHBR\_TX\_OFFSET - Neighbor transmit time offset.  
If TIMING\_INCL is included and is set to ‘1’, the base station shall include the field NGHBR\_TX\_OFFSET and set this field as described below; otherwise, the base station shall omit this field.

The base station shall set this field to the time offset, in units of 80 ms, from the beginning of the neighbor timing period to the beginning of the first base station transmit window within the period. The beginning of the neighbor timing period occurs when  $\lfloor t/4 \rfloor \bmod (16384) = 0$ .

NGHBR\_TX\_DURATION - Neighbor transmit time duration.  
If TIMING\_INCL is included and is set to ‘1’ and GLOBAL\_TIMING\_INCL is set to ‘0’, the base station shall include the field NGHBR\_TX\_DURATION and set this field as described below; otherwise, the base station shall omit this field.

The base station shall set this field to duration of the base station transmit window, during each period, in units of 80 ms. The base station should set this field to a value of 3 or greater.

NGHBR\_TX\_PERIOD - Neighbor transmit time period.  
If TIMING\_INCL is included and is set to ‘1’ and GLOBAL\_TIMING\_INCL is set to ‘0’, the base station shall include the field NGHBR\_TX\_PERIOD and set this field as described below; otherwise, the base station shall omit this field.

The base station shall set this field to duration of the period, in units of 80 ms.

NUM\_ANALOG\_NGHBR - Number of neighboring analog systems.  
The base station shall set this field to the number of neighboring analog systems included in the message.

1 The base station shall include one occurrence of the following record for each neighboring  
 2 analog system included in the message:

- 3           BAND\_CLASS    - Band class.  
         4                         The base station shall set this field to the CDMA band class,  
         5                         as specified in [30].
- 6           SYS\_A\_B        - System A/B.  
         7                         If BAND\_CLASS is set to '00000' or to '00011', the base station  
         8                         shall set this field to the value shown in Table 3.7.2.3.2.22-4  
         9                         corresponding to the availability of neighboring analog  
 10                         systems; otherwise, the base station shall set this field to '00'.

**Table 3.7.2.3.2.22-4. Cellular System A/B**

| <b>Cellular System A/B</b> | <b>Value</b> |
|----------------------------|--------------|
| RESERVED                   | 00           |
| System A                   | 01           |
| System B                   | 10           |
| System A and B             | 11           |

12  
 13 SRCH\_OFFSET\_INCL   - Neighbor pilot channel search window offset included.  
 14                         If NGHBR\_SRCH\_MODE = '10' or '11' and if the  
 15                         SRCH\_OFFSET\_NGHBR field is included in the following  
 16                         records, the base station shall set this bit to '1'; otherwise, the  
 17                         base station shall set this bit to '0'.

18 The base station shall include one occurrence of the following record for each pilot that a  
 19 mobile station is to place in its Neighbor Set. The base station shall use the same order for  
 20 the following record in this message as is used for pilots which are listed in the *Neighbor*  
 21 *List Message* or *Extended Neighbor List Message*. Specifically, the  $i^{th}$  occurrence of the  
 22 following record shall correspond the  $i^{th}$  pilot in the *Neighbor List Message* or in the  
 23 *Extended Neighbor List Message*.

24 ADD\_PILOT\_REC\_INCL - Additional pilot information included indicator.  
 25                         The base station shall set this field to '1' if additional pilot  
 26                         information listed in the NGHBR\_PILOT\_REC\_TYPE and  
 27                         RECORD\_LEN fields are included. The base station shall set  
 28                         this field to '0' if the corresponding pilot is the common pilot  
 29                         and there is no additional pilot information included.

30 NGHBR\_PILOT\_REC\_TYPE - Neighbor Pilot record type  
 31                         If ADD\_PILOT\_REC\_INCL is set to '1', the base station shall  
 32                         set this field to the NGHBR\_PILOT\_REC\_TYPE value shown in  
 33                         Table 3.7.2.3.2.22-5 corresponding to the type of Pilot Record  
 34                         specified by this record.

35

**Table 3.7.2.3.2.22-5. Neighbor Pilot Record Types**

| <b>Description</b>                                 | <b>NGHBR_PILOT_REC_TYPE<br/>(binary)</b> |
|----------------------------------------------------|------------------------------------------|
| 1X Common Pilot with Transmit Diversity            | 000                                      |
| 1X Auxiliary Pilot                                 | 001                                      |
| 1X Auxiliary Pilot with Transmit Diversity         | 010                                      |
| 3X Common Pilot                                    | 011                                      |
| 3X Auxiliary Pilot                                 | 100                                      |
| All other NGHBR_PILOT_REC_TYPE values are reserved |                                          |

- If ADD\_PILOT\_REC\_INCL is set to '0', the base station shall omit this field.
- RECORD\_LEN - Pilot record length.  
If ADD\_PILOT\_REC\_INCL is set to '1', the base station shall set this field to the number of octets in the type-specific fields of this pilot record.  
If ADD\_PILOT\_REC\_INCL is set to '0', the base station shall omit this field.
- Type-specific fields - Pilot record type-specific fields.  
If ADD\_PILOT\_REC\_INCL is set to '1', the base station shall include type-specific fields based on the NGHBR\_PILOT\_REC\_TYPE of this pilot record.  
If ADD\_PILOT\_REC\_INCL is set to '0', the base station shall omit this field.

If NGHBR\_PILOT\_REC\_TYPE is equal to '000', the base station shall include the following fields:

| <b>Field</b>   | <b>Length (bits)</b> |
|----------------|----------------------|
| TD_POWER_LEVEL | 2                    |
| TD_MODE        | 2                    |
| RESERVED       | 4                    |

- TD\_POWER\_LEVEL - TD Transmit Power Level.

The base station shall set this field to the TD transmit power level relative to that of the Forward Pilot Channel as specified in Table 3.7.2.3.2.26-4.

- |          |                                                                                                                                                                                              |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TD_MODE  | <ul style="list-style-type: none"> <li>- Transmit Diversity mode.<br/>The base station shall set this field to the Transmit Diversity mode, as specified in Table 3.7.2.3.2.26-3.</li> </ul> |
| RESERVED | <ul style="list-style-type: none"> <li>- Reserved bits.<br/>The base station shall set this field to '0000'.</li> </ul>                                                                      |

9 If NGHBR\_PILOT\_REC\_TYPE is equal to '001', the base station shall include the following  
10 fields:

| <b>Field</b>    | <b>Length (bits)</b> |
|-----------------|----------------------|
| QOF             | 2                    |
| WALSH_LENGTH    | 3                    |
| AUX_PILOT_WALSH | WALSH_LENGTH+6       |
| RESERVED        | 0 to 7 (as needed)   |

- |      |                                                                                                                                                                                                                                                                                   |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| QOF  | <ul style="list-style-type: none"><li>- Quasi-orthogonal function index.<br/>The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]).</li></ul>                                                                       |
| NGTH | <ul style="list-style-type: none"><li>- Length of the Walsh Code.<br/>The base station shall set this field to the WALSH_LENGTH value shown in Table 3.7.2.3.2.22-6 corresponding to the length of the Walsh code for the pilot that is used in as the Auxiliary pilot.</li></ul> |

**Table 3.7.2.3.2.22-6. Walsh Code Length**

| <b>WALSH_LENGTH<br/>(binary)</b> | <b>Length of the Walsh<br/>Code</b> |
|----------------------------------|-------------------------------------|
| '000'                            | 64                                  |
| '001'                            | 128                                 |
| '010'                            | 256                                 |
| '011'                            | 512                                 |
| '100' – '111'                    | Reserved                            |

- 22           AUX\_PILOT\_WALSH   -   Walsh Code for the Auxiliary Pilot.  
23                                 The base station shall set this field to the Walsh code  
24                                 corresponding to the Auxiliary pilot.  
25           RESERVED   -   Reserved bits.

1           The base station shall set all the bits of this field to '0' to make  
 2           the entire record octet-aligned.

3       If NGHBR\_PILOT\_REC\_TYPE is equal to '010', the base station shall include the following  
 4       fields:

| <b>Field</b>       | <b>Length (bits)</b> |
|--------------------|----------------------|
| QOF                | 2                    |
| WALSH_LENGTH       | 3                    |
| AUX_WALSH          | WALSH_LENGTH+6       |
| AUX_TD_POWER_LEVEL | 2                    |
| TD_MODE            | 2                    |
| RESERVED           | 0 to 7 (as needed)   |

6  
 7       QOF     - Quasi-orthogonal function index for the Auxiliary Transmit  
 8           Diversity Pilot.

9           The base station shall set this field to the index of the Quasi-  
 10          orthogonal function (see Table 3.1.3.1.12-2 of [2]).

11      WALSH\_LENGTH - Length of the Walsh Code.

12           The base station shall set this field to the WALSH\_LENGTH  
 13          value shown in 3.7.2.3.2.22-6 corresponding to the length of  
 14          the Walsh code for the pilots that are used as Auxiliary pilot  
 15          in the transmit diversity mode.

16      AUX\_WALSH - Walsh Code for the Auxiliary Pilot.

17           The base station shall set this field to the Walsh code  
 18          corresponding to the Auxiliary Pilot.

19      AUX\_TD-  
 20      \_POWER\_LEVEL - Auxiliary Transmit Diversity Pilot Power Level.

21           The base station shall set this field to the Auxiliary Transmit  
 22          Diversity Pilot transmit power level relative to that of the  
 23          Auxiliary Pilot as specified in Table 3.7.2.3.2.22-7.

**Table 3.7.2.3.2.22-7. Auxiliary Transmit Diversity Pilot  
Transmit Power Level**

| <b>AUX_TD_POWER_LEVEL</b> | <b>Transmit Power Level</b>                           |
|---------------------------|-------------------------------------------------------|
| 00                        | 9 dB below the Auxiliary Pilot Channel transmit power |
| 01                        | 6 dB below the Auxiliary Pilot Channel transmit power |
| 10                        | 3 dB below the Auxiliary Pilot Channel transmit power |
| 11                        | Same as the Auxiliary Pilot Channel transmit power    |

|          |                                                                                                                                                                                                 |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TD_MODE  | <ul style="list-style-type: none"> <li>- Transmit Diversity mode.</li> </ul> <p>The base station shall set this field to the Transmit Diversity mode, as specified in Table 3.7.2.3.2.26-3.</p> |
| RESERVED | <ul style="list-style-type: none"> <li>- Reserved bits.</li> </ul> <p>The base station shall set all the bits of this field to '0' to make the entire record octet-aligned.</p>                 |

If NGHBR\_PILOT\_REC\_TYPE is equal to '011', the base station shall include the following fields:

| <b>Field</b>      | <b>Length (bits)</b> |
|-------------------|----------------------|
| SR3_PRIMARY_PILOT | 2                    |
| SR3_PILOT_POWER1  | 3                    |
| SR3_PILOT_POWER2  | 3                    |

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SR3_PRIMARY_PILOT | <ul style="list-style-type: none"><li>- Primary SR3 pilot.<br/>The base station shall set this field to the value shown in Table 3.7.2.3.2.26-5 corresponding to the position of the primary SR3 pilot.</li></ul>                                                                                                                                                                                                  |
| SR3_PILOT_POWER1  | <ul style="list-style-type: none"><li>- The primary SR3 pilot power level relative to that of the pilot on the lower frequency of the two remaining SR3 frequencies.<br/>The base station shall set this field to the value shown in Table 3.7.2.3.2.26-6 corresponding to the power level of the primary pilot with respect to the pilot on the lower frequency of the two remaining SR3 frequencies.</li></ul>   |
| SR3_PILOT_POWER2  | <ul style="list-style-type: none"><li>- The primary SR3 pilot power level relative to that of the pilot on the higher frequency of the two remaining SR3 frequencies.<br/>The base station shall set this field to the value shown in Table 3.7.2.3.2.26-6 corresponding to the power level of the primary pilot with respect to the pilot on the higher frequency of the two remaining SR3 frequencies.</li></ul> |

1 | **RESERVED**      Reserved bits.

2 | ~~The base station shall set this field to '0000000'.~~

- 3 |  
4 | If NGHBR\_PILOT\_REC\_TYPE is equal to '100', the base station shall include the following  
5 | fields:

| <b>Field</b>      | <b>Length (bits)</b>    |
|-------------------|-------------------------|
| SR3_PRIMARY_PILOT | 2                       |
| SR3_PILOT_POWER1  | 3                       |
| SR3_PILOT_POWER2  | 3                       |
| QOF               | 2                       |
| WALSH_LENGTH      | 3                       |
| AUX_PILOT_WALSH   | WALSH_LENGTH+6          |
| ADD_INFO_INCL1    | 1                       |
| QOF1              | 0 or 2                  |
| WALSH_LENGTH1     | 0 or 3                  |
| AUX_PILOT_WALSH1  | 0 or<br>WALSH_LENGTH1+6 |
| ADD_INFO_INCL2    | 1                       |
| QOF2              | 0 or 2                  |
| WALSH_LENGTH2     | 0 or 3                  |
| AUX_PILOT_WALSH2  | 0 or<br>WALSH_LENGTH2+6 |
| RESERVED          | 0 – 7 (as needed)       |

- 6 | SR3\_PRIMARY\_PILOT    - Primary SR3 pilot.  
7 | The base station shall set this field to the value shown in  
8 | Table 3.7.2.3.2.26-5 corresponding to the position of the  
9 | primary SR3 pilot.
- 10 | SR3\_PILOT\_POWER1    - The primary SR3 pilot power level relative to that of the pilot  
11 | on the lower frequency of the two remaining SR3 frequencies.  
12 | The base station shall set this field to the value shown in  
13 | Table 3.7.2.3.2.26-6 corresponding to the power level of the  
14 | primary pilot with respect to the pilot on the lower frequency  
15 | of the two remaining SR3 frequencies.
- 16 | SR3\_PILOT\_POWER2    - The primary SR3 pilot power level relative to that of the pilot  
17 | on the higher frequency of the two remaining SR3 frequencies.  
18 | The base station shall set this field to the value shown in  
19 | Table 3.7.2.3.2.26-6 corresponding to the power level of the  
20 | primary pilot with respect to the pilot on the higher frequency  
21 | of the two remaining SR3 frequencies.

- 1                   QOF     - Quasi-orthogonal function index.  
 2                   The base station shall set this field to the index of the Quasi-  
 3                   orthogonal function (see Table 3.1.3.1.12-2 of [2] on the  
 4                   frequency of the primary pilot.
- 5                   WALSH\_LENGTH     - Length of the Walsh Code.  
 6                   The base station shall set this field to the WALSH\_LENGTH  
 7                   value shown in Table 3.7.2.3.2.22-6 corresponding to the  
 8                   length of the Walsh code for the pilot that is used as the  
 9                   Auxiliary pilot on the frequency of the primary pilot.
- 10                  AUX\_PILOT\_WALSH     - Walsh Code for the Auxiliary Pilot.  
 11                  The base station shall set this field to the Walsh code  
 12                  corresponding to the Auxiliary pilot on the frequency of the  
 13                  primary pilot.
- 14                  ADD\_INFO\_INCL1     - Additional information included for the pilot on the lower  
 15                  frequency of the two remaining SR3 frequencies.  
 16                  If the additional information for the pilot on the lower  
 17                  frequencies of the two remaining SR3 frequencies is the same  
 18                  as pilot on the primary frequency, the base station shall set  
 19                  this field to '0'; otherwise, the base station shall set this field  
 20                  to '1'.
- 21                  QOF1     - Quasi-orthogonal function index for the pilot on the lower  
 22                  frequency of the two remaining SR3 frequencies.  
 23                  If ADD\_INFO\_INCL1 is set to '0', the base station shall omit  
 24                  this field; otherwise, the base station shall set this field as  
 25                  follows:  
 26                  The base station shall set this field to the index of the Quasi-  
 27                  orthogonal function (see Table 3.1.3.1.12-2 of [2]) on the lower  
 28                  frequency of the two remaining SR3 frequencies.
- 29                  WALSH\_LENGTH1     - Length of the Walsh Code for the pilot on the lower frequency  
 30                  of the two remaining SR3 frequencies.  
 31                  If ADD\_INFO\_INCL1 is set to '0', the base station shall omit  
 32                  this field; otherwise, the base station shall set this field as  
 33                  follows:  
 34                  The base station shall set this field to the WALSH\_LENGTH  
 35                  value shown in Table 3.7.2.3.2.22-6 corresponding to the  
 36                  length of the Walsh code for the pilot that is used as the  
 37                  Auxiliary pilot on the lower frequency of the two remaining  
 38                  SR3 frequencies.
- 39                  AUX\_PILOT\_WALSH1     - Walsh Code for the Auxiliary Pilot on the lower frequency of  
 40                  the two remaining SR3 frequencies.  
 41                  If ADD\_INFO\_INCL1 is set to '0', the base station shall omit  
 42                  this field; otherwise, the base station shall set this field as  
 43                  follows:  
 44                  The base station shall set this field to the Walsh code  
 45                  corresponding to the Auxiliary pilot on the lower frequency of  
 46                  the two remaining SR3 frequencies.

- 1           ADD\_INFO\_INCL2   - Additional information included for the pilot on the higher  
 2           frequency of the two remaining SR3 frequencies.
- 3           If the additional information for the pilot on the higher  
 4           frequencies of the two remaining SR3 frequencies is the same  
 5           as pilot on the primary frequency, the base station shall set  
 6           this field to '0'; otherwise, the base station shall set this field  
 7           to '1'.
- 8           QOF2   - Quasi-orthogonal function index for the pilot on the higher  
 9           frequency of the two remaining SR3 frequencies.
- 10          If ADD\_INFO\_INCL2 is set to '0', the base station shall omit  
 11         this field; otherwise, the base station shall set this field as  
 12         follows:
- 13          The base station shall set this field to the index of the Quasi-  
 14           orthogonal function (see Table 3.1.3.1.12-2 of [2]) on the  
 15           higher frequency of the two remaining SR3 frequencies.
- 16          WALSH\_LENGTH2   - Length of the Walsh Code for the pilot on the higher frequency  
 17           of the two remaining SR3 frequencies.
- 18          If ADD\_INFO\_INCL2 is set to '0', the base station shall omit  
 19         this field; otherwise, the base station shall set this field as  
 20         follows:
- 21          The base station shall set this field to the WALSH\_LENGTH  
 22           value shown in Table 3.7.2.3.2.22-6 corresponding to the  
 23           length of the Walsh code for the pilot that is used as the  
 24           Auxiliary pilot on the higher frequency of the two remaining  
 25           SR3 frequencies.
- 26          AUX\_PILOT\_WALSH2   - Walsh Code for the Auxiliary Pilot on the higher frequency of  
 27           the two remaining SR3 frequencies.
- 28          If ADD\_INFO\_INCL2 is set to '0', the base station shall omit  
 29         this field; otherwise, the base station shall set this field as  
 30         follows:
- 31          The base station shall set this field to the Walsh code  
 32           corresponding to the Auxiliary pilot on the higher frequency of  
 33           the two remaining SR3 frequencies.
- 34          RESERVED   - Reserved bits.
- 35          The base station shall set all the bits of this field to '0' to make  
 36           the entire record octet-aligned.
- 37          SRCH\_OFFSET\_NGHBR   - Neighbor pilot channel search window size offset.
- 38          If SRCH\_OFFSET\_INCL equals to '1', then the base station  
 39           shall set this field to the value shown in Table 2.6.6.2.1-2  
 40           corresponding to the search window offset to be used by  
 41           mobile stations for this neighbor; otherwise, the base station  
 42           shall omit this field.
- 43          BCCH\_IND\_INCL   - BCCH support included indicator.
- 44          If the BCCH\_SUPPORT field is included in the following  
 45           records, the base station shall set this field to '1'; otherwise,  
 46           the base station shall set this field to '0'.

1    If BCCH\_IND\_INCL is set to '1', the base station shall include one occurrence of the  
2    following field for each pilot that a mobile station is to place in its Neighbor Set. The base  
3    station shall use the same order for the following record in this message as is used for  
4    pilots which are listed in the *Neighbor List Message* or *Extended Neighbor List Message*.  
5    Specifically, the  $i^{th}$  occurrence of the following record shall correspond the  $i^{th}$  pilot in the  
6    *Neighbor List Message* or in the *Extended Neighbor List Message*.

7            BCCH\_SUPPORT    -    BCCH support indicator.

8                         If this neighbor base station supports Broadcast Control  
9                         Channel, the base station shall set this field to '1'; otherwise,  
10                  the base station shall set this field to '0'. |

11 |

## 1    3.7.2.3.2.23 User Zone Identification Message

2    MSG\_TAG: UZIM

| <b>Field</b>   | <b>Length (bits)</b> |
|----------------|----------------------|
| PILOT_PN       | 9                    |
| CONFIG_MSG_SEQ | 6                    |
| UZ_EXIT        | 4                    |
| NUM_UZID       | 4                    |

NUM\_UZID occurrences of the following record:

|          |    |
|----------|----|
| UZID     | 16 |
| UZ_REV   | 4  |
| TEMP_SUB | 1  |

3

4    PILOT\_PN    -    Pilot PN sequence offset index.  
5                 The base station shall set this field to the pilot PN sequence  
6                 offset for this base station, in units of 64 PN chips.7    CONFIG\_MSG\_SEQ    -    Configuration message sequence number.  
8                 The base station shall set this field to CONFIG\_SEQ  
9                 (see 3.6.2.2).10    UZ\_EXIT    -    User Zone Exit parameter.  
11                 The base station shall set this field to the User Zone exit  
12                 parameter (see 2.6.9.2.1). The base station shall set this field  
13                 to a value (in dB) in the range 0 to 15.14    NUM\_UZID    -    Number of User Zone identifiers.  
15                 The base station shall set this field to the number of user zone  
16                 identifiers included in this message.

17    The base station shall include NUM\_UZID occurrences of the following record.

18                 UZID    -    User Zone identifier.  
19                 The base station shall set this field to the User Zone identifier  
20                 (see 3.6.7) supported by the base station.21                 UZ\_REV    -    User Zone update revision number.  
22                 The base station shall set this field to the User Zone update  
23                 revision number.24                 TEMP\_SUB    -    Temporary subscription flag.  
25                 If the corresponding User Zone allows for temporary  
26                 subscription, the base station shall set this field to '1';  
27                 otherwise, the base station shall set this field to '0'.

## 1    3.7.2.3.2.24 Private Neighbor List Message

2    MSG\_TAG: PNLM

| <b>Field</b>        | <b>Length (bits)</b> |
|---------------------|----------------------|
| PILOT_PN            | 9                    |
| CONFIG_MSG_SEQ      | 6                    |
| NUM_RADIO_INTERFACE | 4                    |

NUM\_RADIO\_INTERFACE occurrences of the following record:

|                                      |                               |
|--------------------------------------|-------------------------------|
| RADIO_INTERFACE_TYPE                 | 4                             |
| RADIO_INTERFACE_LEN                  | 8                             |
| Radio Interface Type-specific fields | 8x<br>RADIO_INTERFACE_L<br>EN |

3

- 4            PILOT\_PN    - Pilot PN sequence offset index.  
 5                         The base station shall set this field to the pilot PN sequence  
 6                         offset for this base station, in units of 64 PN chips.
- 7            CONFIG\_MSG\_SEQ    - Configuration message sequence number.  
 8                         The base station shall set this field to CONFIG\_SEQ  
 9                         (see 3.6.2.2).

- 10          NUM\_RADIO-  
 11                \_INTERFACE    - Number of interface types.  
 12                         The base station shall set this field to the number of radio  
 13                         interface types for which private neighbors are included in  
 14                         this message.

15          The base station shall include NUM\_RADIO\_INTERFACE occurrences of the following  
 16          record, one occurrence for each radio interface for which private neighbors are included in  
 17          this message.

- 18          RADIO-  
 19                \_INTERFACE\_TYPE    - The radio interface type.  
 20                         The base station shall set this field to the radio interface type  
 21                         of this record as specified in Table 3.7.2.3.2.24-1.

**Table 3.7.2.3.2.24-1. Radio Interface Type**

| <b>RAIO_INTERFACE_TYPE<br/>(binary)</b> | <b>Descriptions</b> |
|-----------------------------------------|---------------------|
| 0000                                    | MC system           |
| 0001-1111                               | Reserved            |

- RADIO-  
 \_INTERFACE\_LEN - The length of the Radio Interface Type-specific fields.  
 The base station shall set this field to the number of octets in  
 the Radio Interface Type-specific fields of this record.
- If RADIO\_INTERFACE\_TYPE is equal to '0000', the base station shall [set the radio interface type-specific fields as follows](#) [include the following fields](#):

1

| <b>Field</b>      | <b>Length (bits)</b> |
|-------------------|----------------------|
| COMMON_INCL       | 1                    |
| COMMON_BAND_CLASS | 0 or 5               |
| COMMON_NGHBR_FREQ | 0 or 11              |
| SRCH_WIN_PN       | 4                    |
| NUM_PRI_NGHBR     | 6                    |

NUM\_PRI\_NGHBR occurrences of the following record:

|                      |                    |
|----------------------|--------------------|
| SID                  | 15                 |
| NID                  | 16                 |
| PRI_NGHBR_PN         | 9                  |
| ADD_PILOT_REC_INCL   | 1                  |
| NGHBR_PILOT_REC_TYPE | 0 or 3             |
| RECORD_LEN           | 0 or 3             |
| Type-specific fields | 0 or 8× RECORD_LEN |
| BAND_CLASS           | 0 or 5             |
| NGHBR_FREQ           | 0 or 11            |
| UZID_INCL            | 1                  |
| NUM_UZID             | 0 or 4             |

If UZID\_INCL = 1, NUM\_UZID occurrences of the following subrecord; otherwise, no occurrence of the following subrecord:

|          |         |
|----------|---------|
| UZID     | 0 or 16 |
| UZ_REV   | 0 or 4  |
| TEMP_SUB | 0 or 1  |

|                          |                                   |
|--------------------------|-----------------------------------|
| <a href="#">RESERVED</a> | <a href="#">0 - 7 (as needed)</a> |
|--------------------------|-----------------------------------|

2

3

COMMON\_INCL - Common configuration included indicator.

4

5

6

7

8

If all private neighbor base stations included in this message are on the same CDMA band class and CDMA Channel number as specified in the COMMON\_BAND\_CLASS and COMMON\_NGHBR\_FREQ fields, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.

9

COMMON\_BAND\_CLASS - Neighbor band class.

If COMMON\_INCL is set to '1', the base station shall set this field to the CDMA band class as [specified in \[30\] in Table 3.7.2.3.2.8.3](#) corresponding to the CDMA frequency assignment for the CDMA Channel containing the Paging Channel or the Forward Common Control Channel for all private neighbors; otherwise, the base station shall omit this field.

COMMON\_NGHBR\_FREQ - Neighbor frequency assignment.

If the COMMON\_INCL bit is set to '1', the base station shall set this field to the CDMA Channel number, in the specified CDMA band class, corresponding to the CDMA frequency assignment for the CDMA Channel containing the Paging Channel or the Forward Common Control Channel for all private neighbor base station; otherwise, the base station shall omit this field.

SRCH\_WIN\_N - Search window size for the Private Neighbor Set.

The base station shall set this field to the value shown in Table 2.6.6.2.1-1 corresponding to the search window size to be used by mobile stations for the Private Neighbor Set.

NUM\_PRI\_NGHBR - Number of private neighbor pilot PN sequences.

The base station shall set this field to the number of private neighbors included in the message.

The base station shall include NUM\_PRI\_NGHBR occurrences of the following record.

SID - System Identification.

The base station shall set this field to the system identification number for this private neighbor system (see 2.6.5.2).

NID - Network Identification.

This field serves as a sub-identifier of a system as defined by the owner of the SID.

The base station shall set this field to the system identification number for this private neighbor network (see 2.6.5.2).

PRI\_NGHBR\_PN - Private neighbor pilot PN sequence offset index.

The base station shall set this field to the pilot PN sequence offset for this private neighbor, in units of 64 PN chips.

ADD\_PILOT\_REC\_INCL - Additional pilot information included indicator.

The base station shall set this field to '1' if additional pilot information listed in the NGHBR\_PILOT\_REC\_TYPE and RECORD\_LEN fields are included. The base station shall set this field to '0' if the corresponding pilot is the common pilot and there is no additional pilot information included.

NGHBR\_PILOT\_REC\_TYPE - Neighbor Pilot record type

1           If ADD\_PILOT\_REC\_INCL is set to '1', the base station shall  
 2           set this field to the NGHBR\_PILOT\_REC\_TYPE value shown in  
 3           Table 3.7.2.3.2.22-5 corresponding to the type of Pilot Record  
 4           specified by this record.

5           If ADD\_PILOT\_REC\_INCL is set to '0', the base station shall  
 6           omit this field.

- 7           RECORD\_LEN     - Pilot record length.  
 8                        If ADD\_PILOT\_REC\_INCL is set to '1', the base station shall  
 9                        set this field to the number of octets in the type-specific fields  
 10                       of this pilot record.

11                       If ADD\_PILOT\_REC\_INCL is set to '0', the base station shall  
 12                       omit this field.

- 13           Type-specific fields     - Pilot record type-specific fields.  
 14                        If ADD\_PILOT\_REC\_INCL is set to '1', the base station shall  
 15                        include type-specific fields based on the  
 16                        NGHBR\_PILOT\_REC\_TYPE of this pilot record.  
 17                        If ADD\_PILOT\_REC\_INCL is set to '0', the base station shall  
 18                        omit this field.

19           If NGHBR\_PILOT\_REC\_TYPE is equal to '000', the base station shall include the following  
 20           fields:

| <b>Field</b>   | <b>Length (bits)</b> |
|----------------|----------------------|
| TD_POWER_LEVEL | 2                    |
| TD_MODE        | 2                    |
| RESERVED       | 4                    |

- 22  
 23           TD\_POWER\_LEVEL     - TD Transmit Power Level.  
 24                        The base station shall set this field to the TD transmit power  
 25                        level relative to that of the Forward Pilot Channel as specified  
 26                        in Table 3.7.2.3.2.26-4.

- 27           TD\_MODE     - Transmit Diversity mode.  
 28                        The base station shall set this field to the Transmit Diversity  
 29                        mode, as specified in Table 3.7.2.3.2.26-3.

- 30           RESERVED     - Reserved bits.  
 31                        The base station shall set this field to '0000'.

32           If NGHBR\_PILOT\_REC\_TYPE is equal to '001', the base station shall include the following  
 33           fields:

| <b>Field</b>    | <b>Length (bits)</b> |
|-----------------|----------------------|
| QOF             | 2                    |
| WALSH_LENGTH    | 3                    |
| AUX_PILOT_WALSH | WALSH_LENGTH+6       |
| RESERVED        | 0 to 7 (as needed)   |

- 1  
2            QOF    - Quasi-orthogonal function index.  
3            The base station shall set this field to the index of the Quasi-  
4            orthogonal function (see Table 3.1.3.1.12-2 of [2]).  
5            WALSH\_LENGTH - Length of the Walsh Code.  
6            The base station shall set this field to the WALSH\_LENGTH  
7            value shown in Table 3.7.2.3.2.22-6 corresponding to the  
8            length of the Walsh code for the pilot that is used in as the  
9            Auxiliary pilot.  
10          AUX\_PILOT\_WALSH - Walsh Code for the Auxiliary Pilot.  
11          The base station shall set this field to the Walsh code  
12          corresponding to the Auxiliary pilot.  
13          RESERVED - Reserved bits.  
14          The base station shall set all the bits of this field to '0' to make  
15          the entire record octet-aligned.

16        If NGHBR\_PILOT\_REC\_TYPE is equal to '010', the base station shall include the following  
17        fields:

| <b>Field</b>       | <b>Length (bits)</b> |
|--------------------|----------------------|
| QOF                | 2                    |
| WALSH_LENGTH       | 3                    |
| AUX_WALSH          | WALSH_LENGTH+6       |
| AUX_TD_POWER_LEVEL | 2                    |
| TD_MODE            | 2                    |
| RESERVED           | 0 to 7 (as needed)   |

- 19  
20          QOF    - Quasi-orthogonal function index for the Auxiliary Transmit  
21          Diversity Pilot.  
22          The base station shall set this field to the index of the Quasi-  
23          orthogonal function (see Table 3.1.3.1.12-2 of [2]).  
24          WALSH\_LENGTH - Length of the Walsh Code.

1                   The base station shall set this field to the WALSH\_LENGTH  
 2                   value shown in 3.7.2.3.2.22-6 corresponding to the length of  
 3                   the Walsh code for the pilots that are used as Auxiliary pilot  
 4                   in the transmit diversity mode.

- 5                   AUX\_WALSH    - Walsh Code for the Auxiliary Pilot.  
 6                   The base station shall set this field to the Walsh code  
 7                   corresponding to the Auxiliary Pilot.
- 8                   AUX\_TD-  
 9                   \_POWER\_LEVEL - Auxiliary Transmit Diversity Pilot Power Level.  
 10                  The base station shall set this field to the Auxiliary Transmit  
 11                  Diversity Pilot transmit power level relative to that of the  
 12                  Auxiliary Pilot as specified in Table 3.7.2.3.2.22-7.
- 13                  TD\_MODE     - Transmit Diversity mode.  
 14                  The base station shall set this field to the Transmit Diversity  
 15                  mode, as specified in Table 3.7.2.3.2.26-3.
- 16                  RESERVED    - Reserved bits.  
 17                  The base station shall set all the bits of this field to '0' to make  
 18                  the entire record octet-aligned.

19                  If NGHBR\_PILOT\_REC\_TYPE is equal to '011', the base station shall include the following  
 20                  fields:

| <b>Field</b>      | <b>Length (bits)</b> |
|-------------------|----------------------|
| SR3_PRIMARY_PILOT | 2                    |
| SR3_PILOT_POWER1  | 3                    |
| SR3_PILOT_POWER2  | 3                    |

- 21  
 22                  SR3\_PRIMARY\_PILOT - Primary SR3 pilot.  
 23                  The base station shall set this field to the value shown in  
 24                  Table 3.7.2.3.2.26-5 corresponding to the position of the  
 25                  primary SR3 pilot.
- 26                  SR3\_PILOT\_POWER1 - The primary SR3 pilot power level relative to that of the pilot  
 27                  on the lower frequency of the two remaining SR3 frequencies.  
 28                  The base station shall set this field to the value shown in  
 29                  Table 3.7.2.3.2.26-6 corresponding to the power level of the  
 30                  primary pilot with respect to the pilot on the lower frequency  
 31                  of the two remaining SR3 frequencies.
- 32                  SR3\_PILOT\_POWER2 - The primary SR3 pilot power level relative to that of the pilot  
 33                  on the higher frequency of the two remaining SR3 frequencies.  
 34                  The base station shall set this field to the value shown in  
 35                  Table 3.7.2.3.2.26-6 corresponding to the power level of the  
 36                  primary pilot with respect to the pilot on the higher frequency  
 37                  of the two remaining SR3 frequencies.

38                  **RESERVED**      **Reserved bits.**

1 | The base station shall set this field to '0000000'.

2

3 If NGHBR\_PILOT\_REC\_TYPE is equal to '100', the base station shall include the following  
4 fields:

| <b>Field</b>      | <b>Length (bits)</b>    |
|-------------------|-------------------------|
| SR3_PRIMARY_PILOT | 2                       |
| SR3_PILOT_POWER1  | 3                       |
| SR3_PILOT_POWER2  | 3                       |
| QOF               | 2                       |
| WALSH_LENGTH      | 3                       |
| AUX_PILOT_WALSH   | WALSH_LENGTH+6          |
| ADD_INFO_INCL1    | 1                       |
| QOF1              | 0 or 2                  |
| WALSH_LENGTH1     | 0 or 3                  |
| AUX_PILOT_WALSH1  | 0 or<br>WALSH_LENGTH1+6 |
| ADD_INFO_INCL2    | 1                       |
| QOF2              | 0 or 2                  |
| WALSH_LENGTH2     | 0 or 3                  |
| AUX_PILOT_WALSH2  | 0 or<br>WALSH_LENGTH2+6 |
| RESERVED          | 0 – 7 (as needed)       |

- 5 SR3\_PRIMARY\_PILOT - Primary SR3 pilot.  
6 The base station shall set this field to the value shown in  
7 Table 3.7.2.3.2.26-5 corresponding to the position of the  
8 primary SR3 pilot.
- 9 SR3\_PILOT\_POWER1 - The primary SR3 pilot power level relative to that of the pilot  
10 on the lower frequency of the two remaining SR3 frequencies.  
11 The base station shall set this field to the value shown in  
12 Table 3.7.2.3.2.26-6 corresponding to the power level of the  
13 primary pilot with respect to the pilot on the lower frequency  
14 of the two remaining SR3 frequencies.
- 15 SR3\_PILOT\_POWER2 - The primary SR3 pilot power level relative to that of the pilot  
16 on the higher frequency of the two remaining SR3 frequencies.  
17 The base station shall set this field to the value shown in  
18 Table 3.7.2.3.2.26-6 corresponding to the power level of the  
19 primary pilot with respect to the pilot on the higher frequency  
20 of the two remaining SR3 frequencies.
- 21 QOF - Quasi-orthogonal function index.

- The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]) on the frequency of the primary pilot.

WALSH\_LENGTH - Length of the Walsh Code.  
The base station shall set this field to the WALSH\_LENGTH value shown in Table 3.7.2.3.2.22-6 corresponding to the length of the Walsh code for the pilot that is used as the Auxiliary pilot on the frequency of the primary pilot.

AUX\_PILOT\_WALSH - Walsh Code for the Auxiliary Pilot.  
The base station shall set this field to the Walsh code corresponding to the Auxiliary pilot on the frequency of the primary pilot.

ADD\_INFO\_INCL1 - Additional information included for the pilot on the lower frequency of the two remaining SR3 frequencies.  
If the additional information for the pilot on the lower frequencies of the two remaining SR3 frequencies is the same as pilot on the primary frequency, the base station shall set this field to '0'; otherwise, the base station shall set this field to '1'.

QOF1 - Quasi-orthogonal function index for the pilot on the lower frequency of the two remaining SR3 frequencies.  
If ADD\_INFO\_INCL1 is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:  
The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]) on the lower frequency of the two remaining SR3 frequencies.

WALSH\_LENGTH1 - Length of the Walsh Code for the pilot on the lower frequency of the two remaining SR3 frequencies.  
If ADD\_INFO\_INCL1 is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:  
The base station shall set this field to the WALSH\_LENGTH value shown in Table 3.7.2.3.2.22-6 corresponding to the length of the Walsh code for the pilot that is used as the Auxiliary pilot on the lower frequency of the two remaining SR3 frequencies.

AUX\_PILOT\_WALSH1 - Walsh Code for the Auxiliary Pilot on the lower frequency of the two remaining SR3 frequencies.  
If ADD\_INFO\_INCL1 is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:  
The base station shall set this field to the Walsh code corresponding to the Auxiliary pilot on the lower frequency of the two remaining SR3 frequencies.

- 1           ADD\_INFO\_INCL2   - Additional information included for the pilot on the higher  
 2           frequency of the two remaining SR3 frequencies.
- 3           If the additional information for the pilot on the higher  
 4           frequencies of the two remaining SR3 frequencies is the same  
 5           as pilot on the primary frequency, the base station shall set  
 6           this field to '0'; otherwise, the base station shall set this field  
 7           to '1'.
- 8           QOF2   - Quasi-orthogonal function index for the pilot on the higher  
 9           frequency of the two remaining SR3 frequencies.
- 10          If ADD\_INFO\_INCL2 is set to '0', the base station shall omit  
 11         this field; otherwise, the base station shall set this field as  
 12         follows:
- 13          The base station shall set this field to the index of the Quasi-  
 14           orthogonal function (see Table 3.1.3.1.12-2 of [2]) on the  
 15           higher frequency of the two remaining SR3 frequencies.
- 16          WALSH\_LENGTH2   - Length of the Walsh Code for the pilot on the higher frequency  
 17           of the two remaining SR3 frequencies.
- 18          If ADD\_INFO\_INCL2 is set to '0', the base station shall omit  
 19         this field; otherwise, the base station shall set this field as  
 20         follows:
- 21          The base station shall set this field to the WALSH\_LENGTH  
 22           value shown in Table 3.7.2.3.2.22-6 corresponding to the  
 23           length of the Walsh code for the pilot that is used as the  
 24           Auxiliary pilot on the higher frequency of the two remaining  
 25           SR3 frequencies.
- 26          AUX\_PILOT\_WALSH2   - Walsh Code for the Auxiliary Pilot on the higher frequency of  
 27           the two remaining SR3 frequencies.
- 28          If ADD\_INFO\_INCL2 is set to '0', the base station shall omit  
 29         this field; otherwise, the base station shall set this field as  
 30         follows:
- 31          The base station shall set this field to the Walsh code  
 32           corresponding to the Auxiliary pilot on the higher frequency of  
 33           the two remaining SR3 frequencies.
- 34          RESERVED   - Reserved bits.  
 35          The base station shall set all the bits of this field to '0' to make  
 36           the entire record octet-aligned.
- 37          BAND\_CLASS   - Neighbor band class.  
 38          If COMMON\_INCL is set to '0', the base station shall set this  
 39           field to the CDMA band class as [specified in \[30\] in Table](#)  
 40           [3.7.2.3.2.8-3](#)—corresponding to the CDMA frequency  
 41           assignment for the CDMA Channel containing the Paging  
 42           Channel for the private neighbor; otherwise, the base station  
 43           shall omit this field.
- 44          NGHBR\_FREQ   - Neighbor frequency assignment.

If the COMMON\_INCL bit is set to '0', the base station shall set this field to the CDMA Channel number, in the specified CDMA band class, corresponding to the CDMA frequency assignment for the CDMA Channel containing the Paging Channel for the private neighbor base station; otherwise, the base station shall omit this field.

7           UZID\_INCL   - User Zone identifier included indicator.  
 8           If the UZID information is included, the base station shall set  
 9           this field to '1'; otherwise, the base station shall set this field  
 10          to '0'.

11          NUM\_UZID   - Number of User Zone identifiers.  
 12          If UZID\_INCL is set to '1', the base station shall set this field  
 13          to the number of occurrences of UZID supported by the  
 14          private neighbor base station; otherwise, the base station  
 15          shall omit this field.

16          If UZID\_INCL is set to '1', the base station shall include NUM\_UZID occurrences of the  
 17          following three-field subrecord; otherwise, the base station shall omit this subrecord.

18           UZID    - User Zone identifiers.  
 19           The base station shall set this field to the User Zone identifier  
 20           supported by the private neighbor base station.

21           UZ\_REV   - User Zone update revision number.  
 22           The base station shall set this field to the User Zone update  
 23           revision number.

24           TEMP\_SUB   - Temporary subscription flag.  
 25           If the corresponding User Zone allows for temporary  
 26           subscription, the base station shall set this field to '1';  
 27           otherwise, the base station shall set this field to '0'.

28           RESERVED   - Reserved bits.  
 29           The base station shall add reserved bits as needed in order to  
 30           make the length of the entire record equal to an integer  
 31           number of octets. The base station shall set these bits to '0'.

32

1 3.7.2.3.2.25 Reserved

## 1 3.7.2.3.2.26 Sync Channel Message

2 MSG\_TAG: SCHM

3

| <b>Field</b>                                         | <b>Length (bits)</b> |
|------------------------------------------------------|----------------------|
| P_REV                                                | 8                    |
| MIN_P_REV                                            | 8                    |
| SID                                                  | 15                   |
| NID                                                  | 16                   |
| PILOT_PN                                             | 9                    |
| LC_STATE                                             | 42                   |
| SYS_TIME                                             | 36                   |
| LP_SEC                                               | 8                    |
| LTM_OFF                                              | 6                    |
| DAYLT                                                | 1                    |
| PRAT                                                 | 2                    |
| CDMA_FREQ                                            | 11                   |
| EXT_CDMA_FREQ                                        | 11                   |
| <u>SR1_BCCH_NON_TD_INCL</u><br><u>BCCH_SUPPORTED</u> | 1                    |
| <u>SR1_SR1_NON_TD_FREQ_INCL</u>                      | 0 or 1               |
| SR1_CDMA_FREQ_NON_TD                                 | 0 or 11              |
| SR1_BRAT_NON_TD                                      | 0 or 2               |
| SR1_CRAT_NON_TD                                      | 0 or 1               |
| SR1_BCCH_CODE_CHAN_NON_TD                            | 0 or 6               |
| SR1_TD_INCL                                          | <del>0 or 1</del>    |
| SR1_CDMA_FREQ_TD                                     | 0 or 11              |
| SR1_BRAT_TD                                          | 0 or 2               |
| SR1_CRAT_TD                                          | 0 or 1               |
| SR1_BCCH_CODE_CHAN_TD                                | 0 or 6               |

(continues on next page)

4

| <b>Field</b>         | <b>Length (bits)</b> |
|----------------------|----------------------|
| SR1_TD_MODE          | 0 or 2               |
| SR1_TD_POWER_LEVEL   | 0 or 2               |
| SR3_INCL             | 1                    |
| SR3_CENTER_FREQ_INCL | 0 or 1               |
| SR3_CENTER_FREQ      | 0 or 11              |
| SR3_BRAT             | 0 or 2               |
| SR3_BCCH_CODE_CHAN   | 0 or 7               |
| SR3_PRIMARY_PILOT    | 0 or 2               |
| SR3_PILOT_POWER1     | 0 or 3               |
| SR3_PILOT_POWER2     | 0 or 3               |
| DS_INCL              | 1                    |
| DS_BLOB              | 0 or 24              |

- 1
- 2           P\_REV    - Protocol revision level.  
3                         The base station shall set this field to '00000111'.
- 4           MIN\_P\_REV - Minimum protocol revision level.  
5                         The base station sets this field to prevent mobile stations  
6                         which cannot be supported by the base station from accessing  
7                         the system.  
8                         The base station shall set this field to the minimum protocol  
9                         revision level that it supports. For Band Class 0 operation,  
10                  the base station should set this field to a value of '00000010'  
11                  or greater. For Band Class 1 or Band Class 4 operation, the  
12                  base station should set this field to a value of '00000001' or  
13                  greater. For Band Class 3 operation, the base station should  
14                  set this field to a value of '00000011' or greater. For Band  
15                  Class 2 or Band Class 5 operation, the base station should set  
16                  this field to '00000101', or greater. For Band Class 6, Band  
17                  Class 7, Band Class 8, ~~or~~-Band Class 9, or Band Class 10  
18                  operation, the base station should set this field to '00000110'  
19                  or greater.
- 20           SID      - System identification.  
21                         The base station shall set this field to the system identification  
22                         number for this system (see 2.6.5.2).
- 23           NID      - Network identification.  
24                         This field serves as a sub-identifier of a system as defined by  
25                         the owner of the SID.  
26                         The base station shall set this field to the network  
27                         identification number for this network (see 2.6.5.2).

- 1 PILOT\_PN - Pilot PN sequence offset index.  
 2 The base station shall set this field to the pilot PN sequence  
 3 offset for this base station, in units of 64 PN chips.
- 4 LC\_STATE - Long code state.  
 5 The base station shall set this field to the long code state at  
 6 the time given by the SYS\_TIME field of this message.
- 7 SYS\_TIME - System time.  
 8 The base station shall set this field to the System Time as of  
 9 four Sync Channel superframes (320 ms) after the end of the  
 10 last superframe containing any part of this *Sync Channel*  
 11 *Message*, minus the pilot PN sequence offset, in units of 80  
 12 ms (see 1.3 of [2]).
- 13 LP\_SEC - The number of leap seconds that have occurred since the start  
 14 of System Time.  
 15 The base station shall set this field to the number of leap  
 16 seconds that have occurred since the start of System Time, as  
 17 of the time given by the SYS\_TIME field of this message.
- 18 LTM\_OFF - Offset of local time from System Time.  
 19 The base station shall set this field to the two's complement  
 20 offset of local time from System Time, in units of 30 minutes.  
 21 The local time of day, in units of 80 ms, as of four Sync  
 22 Channel superframes (320 ms) after the end of the last  
 23 superframe containing any part of this *Sync Channel Message*,  
 24 minus the pilot PN sequence offset, is equal to SYS\_TIME -  
 25 (LP\_SEC × 12.5) + (LTM\_OFF × 22500).
- 26 DAYLT - Daylight savings time indicator.  
 27 If daylight savings time is in effect, the base station shall set  
 28 this field to '1'; otherwise, the base station shall set this field  
 29 to '0'.
- 30 PRAT - Paging Channel data rate.  
 31 The base station shall set this field to the PRAT field value  
 32 shown in Table 3.7.2.3.2.26-1 corresponding to the data rate  
 33 used by the Paging Channels in the system.

**Table 3.7.2.3.2.26-1. Paging Channel Data Rate**

| <b>PRAT Field (binary)</b> | <b>Paging Channel data rate</b> |
|----------------------------|---------------------------------|
| 00                         | 9600 bps                        |
| 01                         | 4800 bps                        |
| 10                         | Reserved                        |
| 11                         | Reserved                        |

- 35  
 36 CDMA\_FREQ - Frequency assignment.

The base station shall set this field to the CDMA Channel number corresponding to the CDMA frequency assignment for the CDMA Channel containing a Primary Paging Channel.<sup>5</sup>

- EXT\_CDMA\_FREQ** - Extended frequency assignment.

The base station shall set this field to the CDMA Channel number corresponding to the CDMA frequency assignment for the CDMA Channel containing a Primary Paging Channel that a mobile station capable of Radio Configurations greater than 2 or capable of supporting Quick Paging Channel will use.

- SR1\_BCCH\_Non TD InclSupported** - Common Channel in non TD mode Spreading Rate 1 supported-information included indicator.

The base station shall set this field to '1' if the base station supports includes common channels (BCCH/F-CCCH/EACH) information in non TD mode; otherwise, the base station shall set this field to '0'.

- SR1\_NON\_TD-\_FREQ\_INCL** - Non Transmit Diversity frequency included indicator.

If SR1\_BCCH\_Non\_TD\_InclSupported is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to '1' if SR1\_CDMA\_FREQ\_NON\_TD is included in the message. The base station shall set this field to '0' if the frequency specified by the EXT\_CDMA\_FREQ field is used for BCCH frequency assignment.

- SR1\_CDMA-\_FREQ\_NON\_TD - Frequency assignment for non-transmit diversity operation

If SR1\_NON\_TD\_FREQ\_INCL is not included, or is included and set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the CDMA Channel number corresponding to the CDMA frequency assignment for the CDMA Channel containing a Broadcast Control Channel that does not support the TD operation.

- SR1\_BRAT\_NON\_TD - BCCH data rate in non-TD mode for Spreading Rate 1.

If SR1\_BCCH\_NON\_TD\_INCL\_SUPPORTED is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

<sup>5</sup> If compatibility with IS-95-A mobile stations is desired in a Band Class 0 system, the CDMA\_FREQ field is set to the CDMA frequency assignment containing this Sync Channel.

The base station shall set this field to the BRAT field value shown in Table 3.7.2.3.2.26-2 corresponding to the data rate used by the Primary Broadcast Control Channel in the system.

**Table 3.7.2.3.2.26-2. Broadcast Control Channel Data Rate**

| <b>BRAT Field (binary)</b> | <b>Broadcast Control Channel<br/>data rate</b> |
|----------------------------|------------------------------------------------|
| 00                         | 4800 bps                                       |
| 01                         | 9600 bps                                       |
| 10                         | 19200bps                                       |
| 11                         | Reserved                                       |

**SR1\_CRAT\_NON\_TD** – BCCH code rate in non Transmit Diversity mode for Spreading Rate 1.

If SR1\_BCCH\_<u>NON\_TD\_INCL\_SUPPORTED</u> is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to '0' if the BCCH Code Rate is 1/4 (see 3.1.3.1.2.1 of [2]). The base station shall set this field to '1' if the BCCH code rate is 1/2 (see 3.1.3.1.2.1 of [2]).

## SR1\_BCCH\_CODE- \_CHAN\_NON\_TD

- Walsh code for the Spreading Rate 1 BCCH in non Transmit Diversity mode.

If SR1\_BCCH\_ NON\_TD\_INCL\_SUPPORTED is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the Walsh code corresponding to the Spreading Rate 1 BCCH in non Transmit Diversity mode.

- Spreading Rate 1 Transmit Diversity frequency [information](#) included indicator.

If SR1\_BCCH\_SUPPORTED is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to ‘1’ if SR1\_CDMA\_FREQ\_TD, SR1\_BRAT\_TD, SR1\_CRAT\_TD, SR1\_TD\_MODE, and SR1\_TD\_POWER\_LEVEL are included in the message; otherwise, the base station shall set this field to ‘0’.

SR1\_CDMA\_FREOFREQ TD - Spreading Rate 1 frequency assignment for Transmit Diversity operation.

1            If SR1\_TD\_INCL is ~~not included in this message or is included~~  
 2            ~~but is~~ set to '0', the base station shall omit this field;  
 3            otherwise, the base station shall set this field as follows:

4            The base station shall set this field to the CDMA Channel  
 5            number corresponding to the CDMA frequency assignment for  
 6            the CDMA Channel containing a BCCH Channel that supports  
 7            the TD operation.

8            SR1\_BRAT\_TD    - BCCH data rate in Transmit Diversity mode for Spreading  
 9            Rate 1.

10          If SR1\_TD\_INCL is ~~not included in this message or is included~~  
 11          ~~but is~~ set to '0', the base station shall omit this field;  
 12          otherwise, the base station shall set this field as follows:

13          The base station shall set this field to the BRAT field value  
 14          shown in Table 3.7.2.3.2.26-2 corresponding to the data rate  
 15          used by the Primary Broadcast Control Channel in the  
 16          system.

17          SR1\_CRAT\_TD    - BCCH code rate in Transmit Diversity mode for Spreading  
 18          Rate 1.

19          If SR1\_TD\_INCL is ~~not included in this message or is included~~  
 20          ~~but is~~ set to '0', the base station shall omit this field;  
 21          otherwise, the base station shall set this field as follows:

22          The base station shall set this field to '0' if the BCCH Code  
 23          Rate is 1/4 (see 3.1.3.1.2.1 of [2]). The base station shall set  
 24          this field to '1' if the BCCH Code Rate is 1/2 (see 3.1.3.1.2.1 of  
 25          [2]).

26            SR1\_BCCH-  
 27            \_CODE\_CHAN\_TD    - Walsh code for the Spreading Rate 1 BCCH in Transmit  
 28            Diversity mode.

29          If SR1\_TD\_INCL is ~~not included in this message or is included~~  
 30          ~~but is~~ set to '0', the base station shall omit this field;  
 31          otherwise, the base station shall set this field as follows:

32          The base station shall set this field to the Walsh code  
 33          corresponding to the Spreading Rate 1 BCCH in Transmit  
 34          Diversity mode.

35          SR1\_TD\_MODE    - Spreading Rate 1 Transmit Diversity Mode.

36          If SR1\_TD\_INCL is ~~not included in this message or is included~~  
 37          ~~but is~~ set to '0', the base station shall omit this field;  
 38          otherwise, the base station shall set this field as follows:

39          The base station shall set this field corresponding to Table  
 40          3.7.2.3.2.26-3.

**Table 3.7.2.3.2.26-3. TD Mode**

| <b>TD_MODE</b> | <b>Descriptions</b>                      |
|----------------|------------------------------------------|
| 00             | OTD (Orthogonal Transmit Diversity) mode |
| 01             | STS (Space Time Spreading) mode          |
| 10-11          | Reserved                                 |

- 2
- 3                   SR1\_TD-
- 4                   \_POWER\_LEVEL - Spreading Rate 1 TD transmit power level.
- 5                   If SR1\_TD\_INCL is ~~not included in this message or is included~~  
6                   but is set to '0', the base station shall omit this field;  
7                   otherwise, the base station shall set this field as follows:
- 8                   The base station shall set this field to the TD transmit power  
9                   level relative to that of the Forward Pilot Channel, as specified  
10                  in Table 3.7.2.3.2.26-4.

**Table 3.7.2.3.2.26-4. TD Transmit Power Level**

| <b>TD_POWER_LEVEL</b> | <b>Transmit Power Level</b>                         |
|-----------------------|-----------------------------------------------------|
| 00                    | 9 dB below the Forward Pilot Channel transmit power |
| 01                    | 6 dB below the Forward Pilot Channel transmit power |
| 10                    | 3 dB below the Forward Pilot Channel transmit power |
| 11                    | Same as the Forward Pilot Channel transmit power    |

- 12
- 13                  SR3\_INCL - Spreading Rate 3 information included indicator.  
14                  The base station shall set this field to '1' if the Spreading Rate  
15                  3 information is included in this message; otherwise, the base  
16                  station shall set this field to '0'.
- 17                  SR3\_CENTER-  
18                  \_FREQ\_INCL - Center SR3 frequency assignment included.  
19                  If SR3\_INCL is set to '0', the base station shall omit this field;  
20                  otherwise, the base station shall set this field as follows:

The base station shall set this field to ‘1’, if the CDMA Channel number corresponding to the SR3 center frequency assignment for the CDMA Channel containing a Broadcast Control Channel is different to EXT\_CDMA\_FREQ. Otherwise, the base station shall set this field to ‘0’.

- SR3\_CENTER\_FREQ - Center SR3 frequency assignment.  
 If SR3\_CENTER\_FREQ\_INCL is not included or is included but is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the CDMA Channel number corresponding to the SR3 center frequency assignment for the CDMA Channel containing a Broadcast Control Channel.

- SR3\_BRAT – Spreading Rate 3 BCCH data rate.

If SR3\_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the BCCH rate field value shown in Table 3.7.2.3.2.26-2 corresponding to the data rate used by the Primary Broadcast Control Channel in the system.

SR3\_BCCH-  
 \_CODE\_CHAN - Spreading Rate 3 BCCH Walsh code.  
 If SR3\_INCL is set to '0', the base station shall omit this field;  
 otherwise, the base station shall set this field as follows:

- The base station shall set this field to the Walsh code corresponding to the Spreading Rate 3 BCCH.
  - Primary SR3 pilot.  
If SR3\_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:  
The base station shall set this field to the value shown in Table 3.7.2.3.2.26-5 corresponding to the position of the primary SR3 pilot.

**Table 3.7.2.3.2.26-5. The Position of the Primary SR3 Pilot**

| <b>SR3_PRIMARY_PILOT<br/>(Binary)</b> | <b>Position</b>                                   |
|---------------------------------------|---------------------------------------------------|
| 00                                    | The primary pilot is on the lowest SR3 frequency  |
| 01                                    | The primary pilot is on the center SR3 frequency  |
| 10                                    | The primary pilot is on the highest SR3 frequency |
| 11                                    | Reserved                                          |

SR3\_PILOT\_POWER1 – The primary SR3 pilot power level relative to that of the pilot on the lower frequency of the two remaining SR3 frequencies.

If SR3\_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field to the value shown in Table 3.7.2.3.2.26-6 corresponding to the power level of the primary pilot with respect to the pilot on the lower frequency of the two remaining SR3 frequencies.

**Table 3.7.2.3.2.26-6. Pilot Transmission Power**

| <b>SR3_PILOT_POWER1,<br/>SR3_PILOT_POWER2<br/>(Binary)</b> | <b>Relative Transmission Power</b> |
|------------------------------------------------------------|------------------------------------|
| 000                                                        | 0dB                                |
| 001                                                        | 1dB                                |
| 010                                                        | 2dB                                |
| 011                                                        | 3dB                                |
| 100                                                        | 4dB                                |
| 101                                                        | 5dB                                |
| 110                                                        | 6dB                                |
| 111                                                        | 7dB                                |

**SR3\_PILOT\_POWER2** – The primary SR3 pilot power level relative to that of the pilot on the higher frequency of the two remaining SR3 frequencies.

1           If SR3\_INCL is set to '0', the base station shall omit this field;  
2           otherwise, the base station shall set this field to the value  
3           shown in Table 3.7.2.3.2.26-6 corresponding to the power  
4           level of the primary pilot with respect to the pilot on the  
5           higher frequency of the two remaining SR3 frequencies.

- 6           DS\_INCL - Direct Spread (DS) System and Information Available.  
7           If the base station is a pilot beacon and includes the  
8           DS\_BLOB field (containing information on how to access a DS  
9           system, see [32]), the base station shall set this field to '1';  
10          otherwise the base shall set this field to '0'.  
11          DS\_BLOB - Access Information about a Direct Spread (DS) System.  
12          If DS\_INCL is set to '1', the base station shall include this field  
13          and set it as described in [32].  
14          If DS\_INCL is set to '0', the base station shall omit this field.  
15

## 1    3.7.2.3.2.27 Extended Global Service Redirection Message

2    MSG\_TAG: EGSRDM

3

| <b>Field</b>        | <b>Length (bits)</b> |
|---------------------|----------------------|
| PILOT_PN            | 9                    |
| CONFIG_MSG_SEQ      | 6                    |
| REDIRECT_ACCOLC     | 16                   |
| RETURN_IF_FAIL      | 1                    |
| DELETE_TMSI         | 1                    |
| REDIRECT_P_REV_INCL | 1                    |
| EXCL_P_REV_IND      | 0 or 1               |
| REDIRECT_P_MIN      | 0 or 8               |
| REDIRECT_P_MAX      | 0 or 8               |

One occurrence of the following record:

|                      |                |
|----------------------|----------------|
| RECORD_TYPE          | 8              |
| RECORD_LEN           | 8              |
| Type-specific fields | 8 × RECORD_LEN |

4

- 5    PILOT\_PN    -    Pilot PN sequence offset index.  
      The base station shall set this field to the pilot PN sequence  
      offset for this base station, in units of 64 PN chips.
- 8    CONFIG\_MSG\_SEQ    -    Configuration message sequence number.  
      The base station shall set this field to CONFIG\_SEQ  
      (see 3.6.2.2).
- 11    REDIRECT\_ACCOLC    -    Redirected access overload classes.  
      See REDIRECT\_ACCOLC field defined in 3.7.2.3.2.18.  
      The base station shall set the subfields corresponding to the  
      access overload classes of mobile stations which are to be  
      redirected to '1', and shall set the remaining subfields to '0'.

- 1        RETURN\_IF\_FAIL - Return if fail indicator.  
 2  
 3  
 4  
 5  
 6  
 7        DELETE\_TMSI - Delete TMSI indicator.  
 8  
 9  
 10  
 11      REDIRECT\_P\_REV\_INCL - Redirection mobile protocol revision included.  
 12  
 13  
 14  
 15  
 16      If the redirection specified in this message applies to the mobile stations of some specific protocol revisions, the base station shall set this field to '1'; otherwise, if this redirection applies to all mobile stations, the base station shall set this field to '0'.  
 17      EXCL\_P\_REV\_IND - Excluding mobile protocol revision indicator.  
 18  
 19  
 20      If the REDIRECT\_P\_REV\_INCL is set to '1', the base station shall include this field and set this field as described below; otherwise, the base station shall omit this field.  
 21  
 22  
 23  
 24  
 25  
 26  
 27      If mobile stations with MOB\_P\_REV in the range between REDIRECT\_P\_MIN and REDIRECT\_P\_MAX inclusive are excluded from this Global Service Redirection, the base station shall set this field to '1'. Otherwise, if the mobile stations with MOB\_P\_REV in the protocol revision range specified in DIRECT\_P\_MIN and DIRECT\_P\_MAX are subjected to the redirection, the base station shall set this field to '0'.  
 28      REDIRECT\_P\_MIN - Minimum redirection protocol revision.  
 29  
 30  
 31      If REDIRECT\_P\_REV\_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall include this field and set it as follows.  
 32  
 33  
 34  
 35  
 36      The base station shall set this field to the minimum protocol revision of which mobile stations are subjected to as specified by the action contained in EXCL\_P\_REV\_IND (i.e., to be redirected or excluded from redirection). The base station shall set this field to a protocol revision equal to or greater than six.  
 37      REDIRECT\_P\_MAX - Maximum direction protocol revision.  
 38  
 39  
 40      If REDIRECT\_P\_REV\_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall include this field and set it as follows.  
 41  
 42  
 43  
 44  
 45      The base station shall set this field to the maximum protocol revision of which mobile stations are subjected to as specified by the action contained in EXCL\_P\_REV\_IND (i.e., to be redirected or excluded from redirection). The base station shall set this field to a protocol revision equal to or greater than six.

1 The base station shall include one occurrence of the following three-field record:

- 2      RECORD\_TYPE    -    Redirection record type.  
3                  The base station shall set this field to the RECORD\_TYPE  
4                  value shown in Table 3.7.2.3.2.16-2 corresponding to the type  
5                  of redirection specified by this record.
- 6      RECORD\_LEN    -    Redirection record length.  
7                  The base station shall set this field to the number of octets in  
8                  the type-specific fields of this redirection record.
- 9      Type-specific fields    -    Redirection record type-specific fields.  
10                 The base station shall include type-specific fields based on the  
11                 RECORD\_TYPE of this redirection record.

12 If RECORD\_TYPE is equal to '00000001', the base station shall include the following fields:

| Field              | Length (bits) |
|--------------------|---------------|
| EXPECTED_SID       | 15            |
| IGNORE_CDMA        | 1             |
| SYS_ORDERING       | 3             |
| MAX_REDIRECT_DELAY | 5             |

- 15
- 16      EXPECTED\_SID    -    Expected SID.  
17                  If the base station is redirecting the mobile station to a  
18                  specific system, the base station shall set this field to the SID  
19                  of that system; otherwise, the base station shall set this field  
20                  to 0.
- 21      IGNORE\_CDMA    -    Ignore CDMA Available indicator.  
22                  The base station shall set this field to '1' to indicate that the  
23                  mobile station is to ignore the *CDMA Capability Message* on  
24                  the analog system to which it is being redirected. The base  
25                  station shall set this field to '0' to indicate that the mobile  
26                  station may discontinue service on the system to which it is  
27                  being redirected if the mobile station receives a *CDMA Capability Message* with CDMA\_AVAIL equal to '1', and the  
28                  preferred mode of the mobile station is CDMA.
- 30      SYS\_ORDERING    -    System ordering.  
31                  The base station shall set this field to the SYS\_ORDERING  
32                  value shown in Table 3.7.2.3.2.16-3 corresponding to the  
33                  order in which the mobile station is to attempt to obtain  
34                  service on an analog system.
- 35      MAX\_REDIRECT\_DELAY    -    Maximum delay upon redirection.

The base station shall set this field to the maximum delay time, in units of 8 seconds, to be used by mobile stations in the event of a global redirection to analog mode. This operation can be invoked to avoid overloading an underlying analog cell's reverse control channel.

If RECORD\_TYPE is equal to '00000010', the base station shall include the following fields:

| <b>Subfield</b> | <b>Length (bits)</b> |
|-----------------|----------------------|
| BAND_CLASS      | 5                    |
| EXPECTED_SID    | 15                   |
| EXPECTED_NID    | 16                   |
| RESERVED        | 4                    |
| NUM_CHANS       | 4                    |

NUM\_CHANS occurrences of the following field:

|                          |                                   |
|--------------------------|-----------------------------------|
| CDMA_CHAN                | 11                                |
| <a href="#">RESERVED</a> | <a href="#">0 - 7 (as needed)</a> |

- 9
- 10      BAND\_CLASS    -    Band class.  
11                  The base station shall set this field to the CDMA band class,  
12                  as specified in [30].
- 13      EXPECTED\_SID    -    Expected SID.  
14                  If the base station is redirecting the mobile station to a  
15                  specific system, the base station shall set this field to the SID  
16                  of that system; otherwise, the base station shall set this field  
17                  to '0'.
- 18      EXPECTED\_NID    -    Expected NID.  
19                  If the base station is redirecting the mobile station to a  
20                  specific network, the base station shall set this field to the  
21                  NID of that network; otherwise, the base station shall set this  
22                  field to 65535.
- 23      RESERVED        -    Reserved bits.  
24                  The base station shall set this field to '0'
- 25      NUM\_CHANS      -    Number of CDMA Channels.  
26                  The base station shall set this field to the number of  
27                  occurrences of the CDMA\_CHAN field in this record.
- 28      CDMA\_CHAN      -    CDMA Channel number.

1           For each CDMA Channel on which the mobile station is to  
2           attempt to acquire a CDMA system, the base station shall  
3           include one occurrence of this field specifying the associated  
4           CDMA Channel number.

5           RESERVED - Reserved bits.

6           The base station shall add reserved bits as needed in order to  
7           make the length of the entire record equal to an integer  
8           number of octets. The base station shall set these bits to '0'.

9

## 1    3.7.2.3.2.28 Extended CDMA Channel List Message

2    MSG\_TAG: ECCLM

3

| <b>Field</b>   | <b>Length (bits)</b> |
|----------------|----------------------|
| PILOT_PN       | 9                    |
| CONFIG_MSG_SEQ | 6                    |
| NUM_FREQ       | 4                    |

NUM\_FREQ occurrences of the following field:

|           |    |
|-----------|----|
| CDMA_FREQ | 11 |
|-----------|----|

|                  |   |
|------------------|---|
| RC_QPCH_SEL_INCL | 1 |
|------------------|---|

If RC\_QPCH\_SEL\_INCL is equal to '1', include NUM\_FREQ occurrences of the following field:

|                  |   |
|------------------|---|
| RC_QPCH_HASH_IND | 1 |
|------------------|---|

|             |        |
|-------------|--------|
| TD_SEL_INCL | 1      |
| TD_MODE     | 0 or 2 |

If TD\_SEL\_INCL is equal to '1', include NUM\_FREQ occurrences of the following fields:

|                |        |
|----------------|--------|
| TD_HASH_IND    | 1      |
| TD_POWER_LEVEL | 0 or 2 |

4

5    PILOT\_PN    -    Pilot PN sequence offset index.  
6                 The base station shall set this field to the pilot PN sequence  
7                 offset for this base station, in units of 64 PN chips.8    CONFIG\_MSG\_SEQ    -    Configuration message sequence number.  
9                 The base station shall set this field to CONFIG\_SEQ  
10                (see 3.6.2.2).11    NUM\_FREQ    -    Number of CDMA Frequencies  
12                 The base station shall set this field to the number of  
13                supported CDMA frequencies included in this message.14                 [The base station shall not set this field to '0000'.](#)

15

- 1           CDMA\_FREQ     - CDMA Channel frequency assignment.  
 2                         The base station shall include one occurrence of this field for  
 3                         each CDMA Channel, containing either a Paging Channel, or a  
 4                         Broadcast Control Channel and Forward Common Control  
 5                         Channel.  
 6                         The base station shall set each occurrence of this field to the  
 7                         CDMA channel number corresponding to the CDMA frequency  
 8                         assignment for that CDMA Channel (see [2]).  
 9                         If the base station supports a CDMA frequency assignment  
 10                  without transmit diversity, the base station should not set the  
 11                  first occurrence of this field to a CDMA channel number  
 12                  corresponding to a transmit diversity frequency assignment.
- 13           RC\_QPCH\_SEL\_INCL - RC and QPCH Selection included indicator  
 14                         The base station shall set this field to '1', if NUM\_FREQ  
 15                  occurrences of RC\_QPCH\_HASH\_IND are included; otherwise,  
 16                  it shall set this field to '0'.  
 17                  If the base station sets this field to '1', the base station shall set the RC\_QPCH\_HASH\_IND  
 18                  field to '1' in at least one of the following one-field records:
- 19                         RC\_QPCH-  
 20                         \_HASH\_IND     - RC\_QPCH channel hashing indicator  
 21                         If RC\_QPCH\_SEL\_INCL is set to '1', the base station shall  
 22                  include NUM\_FREQ occurrences of this field and set this field  
 23                  as follow; otherwise, the base station shall omit this field.
- 24                         When the *Extended CDMA Channel List Message is sent on the*  
 25                         *Paging Channel, the base station shall perform the following:*  
 26                         *If the associated CDMA\_FREQ is to be selected for CDMA*  
 27                         *channel hashing by mobile stations capable of RC greater*  
 28                         *than two or capable of supporting Quick Paging Channel, the*  
 29                         *base station shall set the field to '1'; otherwise, the base*  
 30                         *station shall set this field to '0'.*
- 31                         When the *Extended CDMA Channel List Message is sent on the*  
 32                         *Primary Broadcast Control Channel, +The base station shall*  
 33                         *set this field to '1', if the corresponding CDMA channel is to be*  
 34                         *selected for channel hashing by mobile stations capable of*  
 35                         *Radio Configurations greater than two or capable of*  
 36                         *supporting Quick Paging Channel with Quick Paging Channel*  
 37                         *capability.*
- 38           TD\_SEL\_INCL     - Transmit diversity selection indicator included.  
 39                         The base station shall set this field to '1', if the base station  
 40                  includes transmit diversity selection information in this  
 41                  message; otherwise, the base station shall set this field to '0'.  
 42                         When the *Extended CDMA Channel List Message is sent on the*  
 43                         *Paging Channel, the base station shall set this field to '0'.*

- 1  
2       TD\_MODE    -    Transmit diversity mode.  
3                  If the field TD\_SEL\_INCL is set to '0', the base station shall  
4                  omit this field; otherwise, the base station shall include this  
5                  field and set it as follows:  
6                  The base station shall set this field to the Transmit Diversity  
7                  mode, as specified in Table 3.7.2.3.2.26-3.  
8        If the TD\_SEL\_INCL is set to '1', the base station shall include NUM\_FREQ occurrences of  
9        the following two-field record, and shall set the TD\_HASH\_IND field to '1' in at least one of  
10      the records:  
11           TD\_HASH\_IND    -    Transmit diversity hash indicator.  
12                  If the associated CDMA\_FREQ is to be selected for CDMA  
13                  channel hashing by mobile stations capable of supporting  
14                  transmit diversity [TD\_MODE], the base station shall set the  
15                  field to '1'; otherwise, the base station shall set this field to '0'.  
16           TD\_POWER\_LEVEL    -    Transmit diversity power level.  
17                  If TD\_HASH\_IND is set to '0', the base station shall omit this  
18                  field; otherwise, the base station shall include this field and  
19                  set it to the transmit diversity transmission power level  
20                  relative to that of the Forward Pilot Channel, as specified in  
21                  Table 3.7.2.3.2.26-4.

## 1    3.7.2.3.2.29 User Zone Reject Message

2    MSG\_TAG: UZRM

| <b>Field</b>       | <b>Length (bits)</b> |
|--------------------|----------------------|
| REJECT_UZID        | 16                   |
| REJECT_ACTION_INDI | 3                    |
| UZID_ASSIGN_INCL   | 1                    |
| ASSIGN_UZID        | 0 or 16              |

- 3    REJECT\_UZID    -    Rejected User Zone identifier.  
 4                         The base station shall set this field to the User Zone identifier  
 5                         of the User Zone rejected by the base station.
- 6    REJECT\_ACTION\_INDI    -    Rejection action indicator.  
 7                         The base station shall set this field to the value shown in  
 8                         Table 3.7.2.3.2.29-1 corresponding to the User Zone rejection  
 9                         action field to identify the mobile station action.

10                         **Table 3.7.2.3.2.29-1. Rejection Action Indicators**

| <b>Description</b>                               | <b>REJECT_ACTION_INDI<br/>(binary)</b> |
|--------------------------------------------------|----------------------------------------|
| Disable UZID until Next Update                   | 000                                    |
| Disable UZID until next power cycle              | 001                                    |
| Disable UZID until new SID                       | 010                                    |
| Disable UZID until new SID/NID                   | 011                                    |
| Disable UZID until next BASE_ID                  | 100                                    |
| All other REJECT_ACTION_INDI values are reserved |                                        |

- 11  
 12    UZID\_ASSIGN\_INCL    -    User Zone identifier assignment included indicator.  
 13                         If assigned UZID information is included, the base station  
 14                         shall set this field to '1'; otherwise, the base station shall set  
 15                         this field to '0'.

- 1           ASSIGN\_UZID   -   Assigned User Zone identifiers.  
2  
3           The base station shall set this field to the User Zone identifier  
of the User Zone assigned to the mobile station.

## 1 3.7.2.3.2.30 ANSI-41 System Parameters Message

2 MSG\_TAG: A41SPM

3

| <b>Field</b>    | <b>Length (bits)</b> |
|-----------------|----------------------|
| PILOT_PN        | 9                    |
| CONFIG_MSG_SEQ  | 6                    |
| SID             | 15                   |
| NID             | 16                   |
| PACKET_ZONE_ID  | 8                    |
| REG_ZONE        | 12                   |
| TOTAL_ZONES     | 3                    |
| ZONE_TIMER      | 3                    |
| MULT_SIDS       | 1                    |
| MULT_NIDS       | 1                    |
| HOME_REG        | 1                    |
| FOR_SID_REG     | 1                    |
| FOR_NID_REG     | 1                    |
| POWER_UP_REG    | 1                    |
| POWER_DOWN_REG  | 1                    |
| PARAMETER_REG   | 1                    |
| REG_PRD         | 7                    |
| DIST_REG_INCL   | 1                    |
| REG_DIST        | 0 or 11              |
| DELETE_FOR_TMSI | 1                    |
| USE_TMSI        | 1                    |
| PREF_MSID_TYPE  | 2                    |

4

(continues on next page)

1

| <b>Field</b>                   | <b>Length (bits)</b>              |
|--------------------------------|-----------------------------------|
| TMSI_ZONE_LEN                  | 4                                 |
| TMSI_ZONE                      | $8 \times \text{TMSI\_ZONE\_LEN}$ |
| IMSI_T_SUPPORTED               | 1                                 |
| MAX_NUM_ALT_SO                 | 3                                 |
| AUTO_MSG_SUPPORTED             | 1                                 |
| AUTO_MSG_INTERVAL              | 0 or 3                            |
| OTHER_INFO_INCL                | 1                                 |
| BASE_ID                        | 0 or 16                           |
| MCC                            | 0 or 10                           |
| IMSI_11_12                     | 0 or 7                            |
| BROADCAST_GPS_ASST             | 0 or 1                            |
| SIG_ENCRYPT_SUP                | 0 or 8                            |
| <b>STORE_KEY</b>               | <b>0 or 1</b>                     |
| CS_SUPPORTED                   | 1                                 |
| <b>MS_INIT_POS_LOC_SUP_IND</b> | <b>1</b>                          |

2

- 3 PILOT\_PN - Pilot PN sequence offset index.  
4 The base station shall set this field to the pilot PN sequence  
5 offset for this base station, in units of 64 PN chips.
- 6 CONFIG\_MSG\_SEQ - Configuration message sequence number.  
7 The base station shall set this field to CONFIG\_SEQ  
8 (see 3.6.2.2).
- 9 SID - System identification.  
10 The base station shall set this field to the system identification  
11 number for this system (see 2.6.5.2).
- 12 NID - Network identification.  
13 This field serves as a sub-identifier of a system as defined by  
14 the owner of the SID.  
15 The base station shall set this field to the network  
16 identification number for this network (see 2.6.5.2).
- 17 PACKET\_ZONE\_ID - Packet data services zone identifier.  
18 If the base station supports a packet data service zone, the  
19 base station shall set this field to its non-zero packet data  
20 services zone identifier.

- 1                   If the base station does not support a packet data service  
 2                   zone, the base station shall set this field to '00000000'.
- 3     REG\_ZONE    - Registration zone.  
 4                   The base station shall set this field to its registration zone  
 5                   number (see 2.6.5.1.5).
- 6     TOTAL\_ZONES - Number of registration zones to be retained.  
 7                   The base station shall set this field to the number of  
 8                   registration zones the mobile station is to retain for purposes  
 9                   of zone-based registration (see 2.6.5.1.5).
- 10                  If zone-based registration is to be disabled, the base station  
 11                 shall set this field to '000'.
- 12     ZONE\_TIMER   - Zone timer length.  
 13                  The base station shall set this field to the ZONE\_TIMER value  
 14                  shown in Table 3.7.2.3.2.30-1 corresponding to the length of  
 15                  the zone registration timer to be used by mobile stations.

**Table 3.7.2.3.2.30-1. Value of Zone Timer**

| <b>ZONE_TIMER<br/>Value (binary)</b> | <b>Timer Length<br/>(Minutes)</b> |
|--------------------------------------|-----------------------------------|
| 000                                  | 1                                 |
| 001                                  | 2                                 |
| 010                                  | 5                                 |
| 011                                  | 10                                |
| 100                                  | 20                                |
| 101                                  | 30                                |
| 110                                  | 45                                |
| 111                                  | 60                                |

- 18
- 19     MULT\_SIDS   - Multiple SID storage indicator.  
 20                  If mobile stations may store entries of SID\_NID\_LIST  
 21                  containing different SIDs, the base station shall set this field  
 22                  to '1'; otherwise the base station shall set this field to '0'.
- 23     MULT\_NIDS    - Multiple NID storage indicator.  
 24                  If mobile stations may store multiple entries of SID\_NID\_LIST  
 25                  having the same SID (with different NIDs), the base station  
 26                  shall set this field to '1'; otherwise the base station shall set  
 27                  this field to '0'.

- 1           HOME\_REG    - Home registration indicator.  
 2  
 3  
 4  
 5  
 6  
 7  
 If mobile stations that are not roaming (see 2.6.5.3) and have MOB\_TERM\_HOME equal to '1' are to be enabled for autonomous registrations, the base station shall set this field to '1'. If such mobile stations are not to be enabled for autonomous registration, the base station shall set this field to '0'.  
 8           FOR\_SID\_REG - SID roamer registration indicator.  
 9  
 10  
 11  
 12  
 13  
 14  
 If mobile stations that are foreign SID roamers (see 2.6.5.3) and have MOB\_TERM\_FOR\_SID equal to '1' are to be enabled for autonomous registration, the base station shall set this field to '1'. If such mobile stations are not to be enabled for autonomous registration, the base station shall set this field to '0'.  
 15          FOR\_NID\_REG - NID roamer registration indicator.  
 16  
 17  
 18  
 19  
 20  
 21  
 If mobile stations that are foreign NID roamers (see 2.6.5.3) and have MOB\_TERM\_FOR\_NID equal to '1' are to be enabled for autonomous registration, the base station shall set this field to '1'. If such mobile stations are not to be enabled for autonomous registration, the base station shall set this field to '0'.  
 22          POWER\_UP\_REG - Power-up registration indicator.  
 23  
 24  
 25  
 26  
 If mobile stations enabled for autonomous registration are to register immediately after powering on and receiving the system overhead messages, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.  
 27          POWER\_DOWN\_REG - Power-down registration indicator.  
 28  
 29  
 30  
 31  
 If mobile stations enabled for autonomous registration are to register immediately before powering down, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.  
 32         PARAMETER\_REG - Parameter-change registration indicator.  
 33  
 34  
 35  
 If mobile stations are to register on parameter change events as specified in 2.6.5.1.6, the base station shall set this field to '1'. If not, the base station shall set this field to '0'.  
 36         REG\_PRD      - Registration period.  
 37  
 38  
 39  
 40  
 41  
 If mobile stations are not to perform timer-based registration, the base station shall set this field to '0000000'. If mobile stations are to perform timer-based registration, the base station shall set this field to the value in the range 29 to 85 inclusive, such that the desired timer value is  
 42                     $\lfloor 2\text{REG\_PRD}/4 \rfloor \times 0.08$  seconds.

- 1           DIST\_REG\_INCL    - Distance-Based Registration Information Included.  
 2                             The base station shall set this field to '1' if it includes  
 3                             distance-based registration information in the message and  
 4                             mobile stations are to perform distance-based registration;  
 5                             otherwise the base station shall set this field to '0'.  
 6           REG\_DIST        - Registration distance.  
 7                             If DIST\_REG\_INCL is set to '1', the base station shall include  
 8                             the field REG\_DIST and shall set this field as shown below;  
 9                             otherwise, the base station shall omit this field.  
 10                          The base station shall set this field to the non-zero "distance"  
 11                          beyond which the mobile station is to re-register (see  
 12                          2.6.5.1.4).  
 13           DELETE\_FOR\_TMSI - Delete foreign TMSI.  
 14                          The base station shall set this field to '1' to cause the mobile  
 15                          station to delete its TMSI if the TMSI was assigned in a  
 16                          different TMSI zone from that specified by the TMSI\_ZONE  
 17                          field of this message; otherwise, the base station shall set this  
 18                          field to '0'.  
 19           USE\_TMSI        - Use TMSI indicator.  
 20                          The base station shall set this field to the value shown in  
 21                          Table 3.7.2.3.2.2930-2 corresponding to the type of MSID that  
 22                          the mobile station is to use on the Enhanced Access Channel.  
 23           PREF\_MSID\_TYPE - Preferred Enhanced Access Channel Mobile Station Identifier  
 24                          Type.  
 25                          The base station shall set this field to the value shown in  
 26                          Table 3.7.2.3.2.30-2 corresponding to the type of MSID that  
 27                          the mobile station is to use on the Enhanced Access Channel.

**Table 3.7.2.3.2.30-2. Preferred MSID Types**

| <b>USE_TMSI<br/>(binary)</b>   | <b>PREF_MSID_TYPE<br/>(binary)</b> | <b>Description</b>                                                 |
|--------------------------------|------------------------------------|--------------------------------------------------------------------|
| 0                              | 00                                 | IMSI_S and ESN                                                     |
| 0                              | 10                                 | IMSI                                                               |
| 0                              | 11                                 | IMSI and ESN                                                       |
| 1                              | 10                                 | TMSI (valid TMSI is assigned);<br>IMSI (TMSI not assigned)         |
| 1                              | 11                                 | TMSI (valid TMSI is assigned);<br>IMSI and ESN (TMSI not assigned) |
| All other values are reserved. |                                    |                                                                    |

- 1
- 2       TMSI\_ZONE\_LEN   - TMSI zone length.  
  3                          The base station shall set this field to the number of octets  
  4                          included in the TMSI\_ZONE. The base station shall set this  
  5                          field to a value in the range 1 to 8 inclusive.
- 6       TMSI\_ZONE   - TMSI zone.  
  7                          The base station shall set this field to the TMSI zone number  
  8                          as specified in [27].
- 9       IMSI\_T\_SUPPORTED   - IMSI\_T support indicator.  
 10                         The base station shall set this field to '1' to indicate support  
 11                         for a 15-digit IMSI\_T addressing according to [18].
- 12      MAX\_NUM\_ALT\_SO   - Maximum number of alternative service options.  
 13                         The base station shall set this field to the maximum number  
 14                         of service option numbers defined in [30], corresponding to  
 15                         alternative service options with no service option group  
 16                         number assigned, that the mobile station is allowed to include  
 17                         in the *Origination Message*, and the *Page Response*.
- 18                         If the base station sets this field to a value greater than zero,  
 19                         in addition, the base station shall allow the mobile station to  
 20                         include
- 21                         • a 4-bit or 8-bit service option bitmap in the *Origination*  
  22                         *Message* and the *Page Response Message*;
  - 23                         • alternate service option numbers, not limited to  
  24                         MAX\_ALT\_SO\_NUM, in the *Enhanced Origination Message*.
- 25      AUTO\_MSG-  
 26                         \_SUPPORTED   - Autonomous message supported indicator.  
 27                         If the base station allows the autonomous delivery of the  
 28                         *Device Information Message* on the r-csch, the base station  
 29                         shall set this field to '1'; otherwise, the base station shall set  
 30                         this field to '0'.
- 31      AUTO\_MSG-  
 32                         \_INTERVAL   - Autonomous message interval.  
 33                         If AUTO\_MSG\_SUPPORTED is set to '04', the base station  
 34                         shall omit this field; otherwise, the base station shall include  
 35                         this field and shall set this field to the AUTO\_MSG\_INTERVAL  
 36                         value shown in Table 3.7.2.3.2.13-4 to indicate the minimum  
 37                         time interval between autonomous messages sent by a mobile  
 38                         station to the infrastructure. This parameter is intended to  
 39                         allow the infrastructure to limit the frequency of autonomous  
 40                         messages sent by a mobile station on the r-csch.
- 41      OTHER\_INFO\_INCL   - Other information included indicator.  
 42                         The base station shall set this field to '1' if the MC-RR  
 43                         Parameters Message is not sent; otherwise, the base station  
 44                         shall set this field to '0'.

|    |                    |                                    |                                                                                                                                                                                                                        |
|----|--------------------|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | BASE_ID            | -                                  | Base station identification.<br><br>If OTHER_INFO_INCL is set to '1', the base station shall include this field and set it as follows; otherwise, the base station shall omit this field.                              |
| 2  |                    |                                    | The base station shall set this field to its identification number.                                                                                                                                                    |
| 3  |                    |                                    |                                                                                                                                                                                                                        |
| 4  | MCC                | -                                  | Mobile Country Code.<br><br>If OTHER_INFO_INCL is set to '1', the base station shall include this field and set it as follows; otherwise, the base station shall omit this field.                                      |
| 5  |                    |                                    |                                                                                                                                                                                                                        |
| 6  |                    |                                    |                                                                                                                                                                                                                        |
| 7  |                    |                                    | The base station shall set this field to the MCC (see 2.3.1)                                                                                                                                                           |
| 8  | IMSI_11_12         | -                                  | 11 <sup>th</sup> and 12 <sup>th</sup> digits of the IMSI.<br><br>If OTHER_INFO_INCL is set to '1', the base station shall include this field and set it as follows; otherwise, the base station shall omit this field. |
| 9  |                    |                                    |                                                                                                                                                                                                                        |
| 10 |                    |                                    |                                                                                                                                                                                                                        |
| 11 |                    |                                    | The base station shall set this field to the IMSI_11_12 (see 2.3.1).                                                                                                                                                   |
| 12 |                    |                                    |                                                                                                                                                                                                                        |
| 13 |                    |                                    |                                                                                                                                                                                                                        |
| 14 | BROADCAST_GPS_ASST | -                                  | Broadcast GPS Assist Indicator.<br><br>If OTHER_INFO_INCL is set to '1', the base station shall include this field and set it as follows; otherwise, the base station shall omit this field.                           |
| 15 |                    |                                    |                                                                                                                                                                                                                        |
| 16 |                    |                                    |                                                                                                                                                                                                                        |
| 17 |                    |                                    | The base station shall set this field to '1' if it supports Broadcast GPS Assist capability; otherwise, the base station shall set this field to '0'.                                                                  |
| 18 |                    |                                    |                                                                                                                                                                                                                        |
| 19 | SIG_ENCRYPT_SUP    | -                                  | Signaling <u>e</u> ncryption supported indicator.<br><br>If OTHER_INFO_INCL is set to '1', the base station shall include this field and set it as follows; otherwise, the base station shall omit this field.         |
| 20 |                    |                                    |                                                                                                                                                                                                                        |
| 21 |                    |                                    |                                                                                                                                                                                                                        |
| 22 |                    |                                    | This field consists of the subfields shown in Table 2.7.1.3.2.1-5.                                                                                                                                                     |
| 23 |                    |                                    |                                                                                                                                                                                                                        |
| 24 |                    |                                    |                                                                                                                                                                                                                        |
| 25 |                    |                                    | If this field is included, the base station shall set the subfields as follows:                                                                                                                                        |
| 26 |                    |                                    |                                                                                                                                                                                                                        |
| 27 |                    |                                    |                                                                                                                                                                                                                        |
| 28 |                    |                                    | The base station shall set the CMEA subfield to '1'.                                                                                                                                                                   |
| 29 |                    |                                    |                                                                                                                                                                                                                        |
| 30 |                    |                                    |                                                                                                                                                                                                                        |
| 31 |                    |                                    | The base station shall set each other subfield to '1' if the corresponding signaling <u>encryption</u> algorithm is supported by the base station; otherwise, the base station shall set the subfield to '0'.          |
| 32 |                    |                                    |                                                                                                                                                                                                                        |
| 33 |                    |                                    |                                                                                                                                                                                                                        |
| 34 |                    |                                    |                                                                                                                                                                                                                        |
| 35 |                    |                                    |                                                                                                                                                                                                                        |
| 36 |                    |                                    |                                                                                                                                                                                                                        |
| 37 |                    |                                    |                                                                                                                                                                                                                        |
| 38 |                    |                                    | The base station shall set the RESERVED subfield to '000000'.                                                                                                                                                          |
| 39 | STORE_KEY          | <u>Store session key indicator</u> |                                                                                                                                                                                                                        |
| 40 |                    |                                    | <u>If OTHER_INFO_INCL is set to '1', the base station shall include this field and set it as follows; otherwise, the base station shall omit this field.</u>                                                           |
| 41 |                    |                                    |                                                                                                                                                                                                                        |
| 42 |                    |                                    |                                                                                                                                                                                                                        |

1                   The base station shall set this field to '1' to indicate that the  
2                   mobile station is to store the session key; otherwise the base  
3                   station shall set this field to '0'.  
4

5                   CS\_SUPPORTED - Concurrent Services supported indicator.  
6  
7

8                   If the base station supports concurrent services, the base  
9                   station shall set this field to '1'; otherwise, the base station  
10                  shall set this field to '0'.  
11

12                  MS INIT POS LOC - Mobile station initiated position location determination  
13

1                   SUP IND supported indicator.  
2  
3

4                   If the base station supports mobile station initiated position  
5                   determination, the base station shall set this field to '1';  
6                   otherwise, the base station shall set this field to '0'.  
7  
8

## 1 3.7.2.3.2.31 MC-RR Parameters Message

## 2 MSG\_TAG: MCRRPM

| <b>Field</b>         | <b>Length (bits)</b> |
|----------------------|----------------------|
| PILOT_PN             | 9                    |
| CONFIG_MSG_SEQ       | 6                    |
| BASE_ID              | 16                   |
| P_REV                | 8                    |
| MIN_P_REV            | 8                    |
| SR3_INCL             | 1                    |
| SR3_CENTER_FREQ_INCL | 0 or 1               |
| SR3_CENTER_FREQ      | 0 or 11              |
| SR3_BRAT             | 0 or 2               |
| SR3_BCCH_CODE_CHAN   | 0 or 7               |
| SR3_PRIMARY_PILOT    | 0 or 2               |
| SR3_PILOT_POWER1     | 0 or 3               |
| SR3_PILOT_POWER2     | 0 or 3               |
| SRCH_WIN_A           | 4                    |
| SRCH_WIN_R           | 4                    |
| T_ADD                | 6                    |
| T_DROP               | 6                    |
| T_COMP               | 4                    |
| T_TDROPOFF           | 4                    |
| NGHBR_MAX_AGE        | 4                    |
| SOFT_SLOPE           | 6                    |
| ADD_INTERCEPT        | 6                    |
| DROP_INTERCEPT       | 6                    |
| ENC_SUPPORTED        | 1                    |
| SIG_ENCRYPT_SUP      | 0 or 8               |
| UI_ENCRYPT_SUP       | 0 or 8               |
| <b>STORE_KEY</b>     | <b>0 or 1</b>        |

(continues on next page)

| <b>Field</b>           | <b>Length (bits)</b>               |
|------------------------|------------------------------------|
| ADD_FIELDS_LEN         | 8                                  |
| ADD_FIELDS             | $8 \times \text{ADD\_FIELDS\_LEN}$ |
| CCH_INFO_INCL          | 1                                  |
| MCC                    | 0 or 10                            |
| IMSI_11_12             | 0 or 7                             |
| MAX_SLOT_CYCLE_INDEX   | 0 or 3                             |
| PWR REP THRESH         | 0 or 5                             |
| PWR REP FRAMES         | 0 or 4                             |
| PWR_THRESH_ENABLE      | 0 or 1                             |
| PWR_PERIOD_ENABLE      | 0 or 1                             |
| PWR REP DELAY          | 0 or 5                             |
| RESELECT_INCLUDED      | 0 or 1                             |
| EC_THRESH              | 0 or 5                             |
| EC_IO_THRESH           | 0 or 5                             |
| BASE_LAT               | 0 or 22                            |
| BASE_LONG              | 0 or 23                            |
| PILOT_REPORT           | 0 or 1                             |
| ACC_ENT_HO_ORDER       | 0 or 1                             |
| ACCESS_HO              | 0 or 1                             |
| ACCESS_HO_MSG_RSP      | 0 or 1                             |
| ACCESS_PROBE_HO        | 0 or 1                             |
| ACC_HO_LIST_UPD        | 0 or 1                             |
| ACC_PROBE_HO_OTHER_MSG | 0 or 1                             |
| MAX_NUM_PROBE_HO       | 0 or 3                             |
| NUM_FCCCH              | 0 or 3                             |
| FCCCH_RATE             | 0 or 3                             |
| FCCCH_CODE_RATE        | 0 or 1                             |

NUM\_FCCCH occurrences of the following one field record:

|                 |   |
|-----------------|---|
| FCCCH_CODE_CHAN | 8 |
|-----------------|---|

(continues on next page)

1

| <b>Field</b>   | <b>Length (bits)</b> |
|----------------|----------------------|
| BCAST_INDEX    | 0 or 3               |
| NUM_BCCH_BCAST | 0 or 3               |

NUM\_BCCH\_BCAST occurrences of the following three-field record:

|                |   |
|----------------|---|
| BCCH_CODE_CHAN | 7 |
| BRAT           | 2 |
| BCCH_CODE_RATE | 1 |

|                         |        |
|-------------------------|--------|
| QPCH_SUPPORTED          | 0 or 1 |
| NUM_QPCH                | 0 or 2 |
| QPCH_RATE               | 0 or 1 |
| QPCH_POWER_LEVEL_PAGE   | 0 or 3 |
| QPCH_CCI_SUPPORTED      | 0 or 1 |
| QPCH_POWER_LEVEL_CONFIG | 0 or 3 |

NUM\_QPCH occurrences of the following one field record if operating in Spreading Rate 3 common channel:

|                |        |
|----------------|--------|
| QPCH_CODE_CHAN | 0 or 8 |
|----------------|--------|

|                         |        |
|-------------------------|--------|
| QPCH_BL_SUPPORTED       | 0 or 1 |
| QPCH_POWER_LEVEL_BCAST  | 0 or 3 |
| SDB_SUPPORTED           | 0 or 1 |
| BROADCAST_GPS_ASST      | 0 or 1 |
| RLGAIN_TRAFFIC_PILOT    | 0 or 6 |
| REV_PWR_CNTL_DELAY_INCL | 0 or 1 |
| REV_PWR_CNTL_DELAY      | 0 or 2 |
| MOB_QOS                 | 0 or 1 |
| USE_SYNC_ID             | 0 or 1 |
| NUM_OPT_MSG             | 0 or 4 |

(continues on next page)

2

| <b>Field</b>                             | <b>Length (bits)</b>   |
|------------------------------------------|------------------------|
| SENDING_RAND                             | 0 or 1                 |
| PRI_NGHBR_LIST                           | 0 or 1                 |
| USER_ZONE_ID                             | 0 or 1                 |
| EXT_GLOBAL_REDIRECT                      | 0 or 1                 |
| RESERVED                                 | 0 or (NUM_OPT_MSG - 4) |
| <a href="#">PILOT_INFO_REQ_SUPPORTED</a> | <a href="#">0 or 1</a> |

- 1  
2            PILOT\_PN    -    Pilot PN sequence offset index.  
3                         The base station shall set this field to the pilot PN sequence  
4                         offset for this base station, in units of 64 PN chips.  
5            CONFIG\_MSG\_SEQ    -    Configuration message sequence number.  
6                         The base station shall set this field to CONFIG\_SEQ  
7                         (see 3.6.2.2).  
8            BASE\_ID    -    Base station identification.  
9                         The base station shall set this field to its identification  
10                  number.  
11            P\_REV    -    Protocol revision level.  
12                         The base station shall set this field to '00000111'.  
13            MIN\_P\_REV    -    Minimum protocol revision level.  
14                         The base station sets this field to prevent mobile stations,  
15                         which cannot be supported by the base station from accessing  
16                  the system.  
17                         The base station shall set this field to the minimum protocol  
18                  revision level that it supports. For Band Class 0 operation,  
19                  the base station should set this field to a value of '00000010'  
20                  or greater. For Band Class 1 or Band Class 4 operation, the  
21                  base station should set this field to a value of '00000001' or  
22                  greater. For Band Class 3 operation, the base station should  
23                  set this field to a value of '00000011' or greater. For Band  
24                  Class 2 or Band Class 5 operation, the base station should set  
25                  this field to '00000101', or greater. For Band Class 6, Band  
26                  Class 7, Band Class 8, ~~or~~-Band Class 9, or Band Class 10  
27                  operation, the base station should set this field to '00000110'  
28                  or greater.  
29            SR3\_INCL    -    Spreading Rate 3 common channel parameters included  
30                  indicator.

The base station shall set this field to '1' if the base station includes SR3 related parameters in this message; otherwise, the base station shall set this field to '0'.

If the base station is operating in SR3 mode, the base station shall set this field to '0'.

SR3\_CENTER-  
\_FREQ\_INCL

- Center SR3 frequency assignment included.

If SR3\_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to ‘1’, if the CDMA Channel number corresponding to the SR3 center frequency assignment for the CDMA Channel containing a Broadcast Control Channel is different from the current SR1 frequency assignment. Otherwise, the base station shall set this field to ‘0’.

- Center SR3 frequency assignment.

If SR3\_CENTER\_FREQ\_INCL is not included or is included but is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the CDMA Channel number corresponding to the SR3 center frequency assignment for the CDMA Channel containing a Broadcast Control Channel.

## SR3\_BRAT

- Spreading Rate 3 BCCH data rate.

If SR3\_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the BCCH rate field value shown in Table 3.7.2.3.2.26-2 corresponding to the data rate used by the Primary Broadcast Control Channel in the system.

SR3\_BCCH-  
CODE\_CHAN

- Spreading Rate 3 BCCH Walsh code index.

If SR3\_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the Walsh code index corresponding to the Spreading Rate 3 BCCH.

### SR3\_PRIMARY\_PILOT

- Primary SR3 pilot.

If SR3\_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the value shown in Table 3.7.2.3.2.26-5 corresponding to the position of the primary SR3 pilot.

### SR3\_PILOT\_POWER1 -

- The primary SR3 pilot power level relative to that of the pilot on the lower frequency of the two remaining SR3 frequencies.

If SR3\_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field to the value shown in Table 3.7.2.3.2.26-6 corresponding to the power level of the primary pilot with respect to the pilot on the lower frequency of the two remaining SR3 frequencies.

SR3\_PILOT\_POWER2 - The primary SR3 pilot power level relative to that of the pilot on the higher frequency of the two remaining SR3 frequencies.

If SR3\_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field to the value shown in Table 3.7.2.3.2.26-6 corresponding to the power level of the primary pilot with respect to the pilot on the higher frequency of the two remaining SR3 frequencies.

SRCH\_WIN\_A - Search window size for the Active Set and Candidate Set.

The base station shall set this field to the value shown in Table 2.6.6.2.1-1 corresponding to the search window size to be used by mobile stations for the Active Set and Candidate Set.

SRCH\_WIN\_R - Search window size for the Remaining Set.

The base station shall set this field to the value shown in Table 2.6.6.2.1-1 corresponding to the search window size to be used by mobile stations for the Remaining Set.

T\_ADD - Pilot detection threshold.

This value is used by the mobile station to trigger the transfer of a pilot from the Neighbor Set or Remaining Set to the Candidate Set (see 2.6.6.2.6) and to trigger the sending of the *Pilot Strength Measurement Message* or *Extended Pilot Strength Measurement Message* initiating the handoff process (see 2.6.6.2.5.2).

The base station shall set this field to the pilot detection threshold, expressed as an unsigned binary number equal to  $\lfloor -2 \times 10 \times \log_{10} E_c/I_o \rfloor$ .

T\_DROP - Pilot drop threshold.

This value is used by mobile stations to start a handoff drop timer for pilots in the Active Set and the Candidate Set (see 2.6.6.2.3).

The base station shall set this field to the pilot drop threshold, expressed as an unsigned binary number equal to  $\lfloor -2 \times 10 \times \log_{10} E_c/I_o \rfloor$ .

T\_COMP - Active Set versus Candidate Set comparison threshold.

Mobile stations transmit a *Pilot Strength Measurement Message* or *Extended Pilot Strength Measurement Message* when the strength of a pilot in the Candidate Set exceeds that of a pilot in the Active Set by this margin (see 2.6.6.2.5.2).

The base station shall set this field to the threshold Candidate Set pilot to Active Set pilot ratio, in units of 0.5 dB.

|    |                 |                                                                          |
|----|-----------------|--------------------------------------------------------------------------|
| 1  | T_TDROPO        | - Drop timer value.                                                      |
| 2  |                 | Timer value after which an action is taken by mobile stations            |
| 3  |                 | for a pilot that is a member of the Active Set or Candidate Set,         |
| 4  |                 | and whose strength has not become greater than T_DROP. If                |
| 5  |                 | the pilot is a member of the Active Set, a <i>Pilot Strength</i>         |
| 6  |                 | <i>Measurement Message</i> or <i>Extended Pilot Strength Measurement</i> |
| 7  |                 | <i>Message</i> is issued. If the pilot is a member of the Candidate      |
| 8  |                 | Set, it will be moved to the Neighbor Set.                               |
| 9  |                 | The base station shall set this field to the T_TDROPO value              |
| 10 |                 | shown in Table 2.6.6.2.3-1 corresponding to the drop timer               |
| 11 |                 | value to be used by mobile stations.                                     |
| 12 | NGHBR_MAX_AGE   | - Neighbor Set maximum AGE.                                              |
| 13 |                 | The base station shall set this field to the maximum AGE                 |
| 14 |                 | value beyond which mobile stations are to drop members from              |
| 15 |                 | the Neighbor Set (see 2.6.6.2.6.3).                                      |
| 16 | SOFT_SLOPE      | - The slope in the inequality criterion for adding a pilot to the        |
| 17 |                 | Active Set, or dropping a pilot from the Active Set (see                 |
| 18 |                 | 2.6.6.2.3 and 2.6.6.2.5.2).                                              |
| 19 |                 | The base station shall set this field as an unsigned binary              |
| 20 |                 | number.                                                                  |
| 21 | ADD_INTERCEPT   | - The intercept in the inequality criterion for adding a pilot to        |
| 22 |                 | the Active Set (see 2.6.6.2.5.2).                                        |
| 23 |                 | The base station shall set this field as a two's complement              |
| 24 |                 | signed binary number, in units of dB.                                    |
| 25 | DROP_INTERCEPT  | - The intercept in the inequality criterion for dropping a pilot         |
| 26 |                 | from the Active Set (see 2.6.6.2.3).                                     |
| 27 |                 | The base station shall set this field as a two's complement              |
| 28 |                 | signed binary number, in units of dB.                                    |
| 29 | ENC_SUPPORTED   | - Encryption fields included.                                            |
| 30 |                 | The base station shall set this field to '1' if the encryption           |
| 31 |                 | related fields are included; otherwise the base station shall set        |
| 32 |                 | this field to '0'.                                                       |
| 33 | SIG_ENCRYPT_SUP | - Signaling <del>e</del> Encryption supported indicator.                 |
| 34 |                 | If ENC_SUPPORTED is equal to '1', the base station shall                 |
| 35 |                 | include this field; otherwise, the base station shall omit this          |
| 36 |                 | field. If this field is included, this field indicates which             |
| 37 |                 | signaling encryption algorithms are supported by the base                |
| 38 |                 | station.                                                                 |

1           This field consists of the subfields shown in Table 2.7.1.3.2.1-  
 2           5.

3           If this field is included, the base station shall set the subfields  
 4           as follows:

5           The base station shall set the CMEA subfield to '1'.

6           The base station shall set each other subfield to '1' if the  
 7           corresponding signaling [encryption](#) algorithm is supported by  
 8           the base station; otherwise, the base station shall set the  
 9           subfield to '0'.

10          The base station shall set the RESERVED subfield to '000000'.

11          UI\_ENCRYPT\_SUP - User information [eB](#)ncryption supported indicator.

12          If ENC\_SUPPORTED is equal to '1', the base station shall  
 13           include this field; otherwise, the base station shall omit this  
 14           field. If this field is included, the base station shall set this  
 15           field to indicate the supported user information encryption  
 16           algorithms.

17          This field consists of the subfields shown in Table 2.7.1.3.2.4-  
 18           9.

19          The base station shall set each subfield to '1' if the  
 20           corresponding user information encryption algorithm is  
 21           supported by the base station; otherwise, the base station  
 22           shall set the subfield to '0'.

23          **STORE\_KEY** Store session key indicator

24          If ENC\_SUPPORTED is equal to '1', the base station shall  
 25           include this field; otherwise, the base station shall omit this  
 26           field. If this field is included, the base station shall set this  
 27           field to '1' to indicate that the mobile station is to store the  
 28           session key; otherwise the base station shall set this field to  
 29           '0'.

30          ADD\_FIELDS\_LEN - Additional fields length.

31          The base station shall set this field to the number of octets  
 32           included in the ADD\_FIELDS. The base station shall set this  
 33           field to '00000000'.

34          ADD\_FIELDS - Additional fields.

35          The base station shall include  $8 \times \text{ADD_FIELDS\_LEN}$  bits to  
 36           support additional fields, if any.

37          CCH\_INFO\_INCL - Common Channel information included indicator.

38          If the message is sent on the f-csch and additional information  
 39           is included, the base station shall set this field to '1';  
 40           otherwise, the base station shall set this field to '0'.

41          The base station shall set this field to '1'.

- 1                   MCC     - Mobile Country Code.
- 2                   If CCH\_INFO\_INCL is set to ‘1’, the base station shall include  
3                   this field and set it as follows; otherwise, the base station  
4                   shall omit this field.
- 5                   The base station shall set this field to the MCC (see 2.3.1)
- 6                   IMSI\_11\_12 - 11<sup>th</sup> and 12<sup>th</sup> digits of the IMSI.
- 7                   If CCH\_INFO\_INCL is set to ‘1’, the base station shall include  
8                   this field and set it as follows; otherwise, the base station  
9                   shall omit this field.
- 10                  The base station shall set this field to the IMSI\_11\_12 (see  
11                  2.3.1).
- 12                  MAX\_SLOT\_CYCLE- - Maximum slot cycle index.
- 13                  \_INDEX    If CCH\_INFO\_INCL is set to ‘1’, the base station shall include  
14                  the field MAX\_SLOT\_CYCLE\_INDEX and shall set this field as  
15                  shown below; otherwise, the base station shall omit this field.
- 16                  The base station shall set this field to the SLOT\_CYCLE\_INDEX value corresponding to the maximum  
17                  slot cycle length permitted (see 2.6.2.1.1).
- 18                  PWR REP THRESH - Power control reporting threshold.
- 19                  If CCH\_INFO\_INCL is set to ‘1’, the base station shall include  
20                  the field PWR REP THRESH and shall set this field as shown  
21                  below; otherwise, the base station shall omit this field.
- 22                  The base station shall set this field to the number of bad frames (see [2]) to be received in a measurement period on the channel which carries the Power Control Subchannel before mobile stations are to generate a *Power Measurement Report Message* (see 2.6.4.1.1). If the base station sets PWR\_THRESH\_ENABLE to ‘1’, it shall not set this field to ‘00000’.
- 23                  PWR REP FRAMES - Power control reporting frame count.
- 24                  If CCH\_INFO\_INCL is set to ‘1’, the base station shall include  
25                  the field PWR REP FRAMES and shall set this field as shown  
26                  below; otherwise, the base station shall omit this field.
- 27                  The base station shall set this field to the value such that the  
28                  number given by  
29                   $\lfloor 2(PWR\_REP\_FRAMES/2) \times 5 \rfloor$  frames
- 30                  is the number of frames over which mobile stations are to  
31                  count frame errors.
- 32                  PWR\_THRESH- - Threshold report mode indicator.
- 33                  \_ENABLE    If CCH\_INFO\_INCL is set to ‘1’, the base station shall include  
34                  the field PWR\_THRESH\_ENABLE and shall set this field as  
35                  shown below; otherwise, the base station shall omit this field.

If mobile stations are to generate threshold *Power Measurement Report Messages*, the base station shall set this field to ‘1’. If mobile stations are not to generate threshold *Power Measurement Report Messages*, the base station shall set this field to ‘0’.

PWR\_PERIOD-  
\_ENABLE - Periodic report mode indicator.  
If CCH\_INFO\_INCL is set to ‘1’, the base station shall include the field PWR\_PERIOD\_ENABLE and shall set this field as shown below; otherwise, the base station shall omit this field.

If mobile stations are to generate periodic *Power Measurement Report Messages*, the base station shall set this field to ‘1’. If mobile stations are not to generate periodic *Power Measurement Report Messages*, the base station shall set this field to ‘0’.

PWR REP\_DELAY - Power report delay.  
The period that mobile stations wait following a *Power Measurement Report Message* before restarting frame counting for power control purposes.

If CCH\_INFO\_INCL is set to ‘1’, the base station shall include the field PWR REP\_DELAY and shall set this field as shown below; otherwise, the base station shall omit this field.

The base station shall set this field to the power report delay value, in units of 4 frames (see 2.6.4.1.1).

RESELECTINCLUDED - System reselection parameters included.  
If CCH\_INFO\_INCL is set to ‘1’, the base station shall include the field RESELECTINCLUDED and shall set this field as shown below; otherwise, the base station shall omit this field.

If the base station is including system reselection parameters, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

EC\_THRESH - Pilot power threshold.  
If RESELECTINCLUDED is included and is set to ‘1’, the base station shall include the field EC\_THRESH and shall set this field as shown below; otherwise, the base station shall omit this field.

The base station shall set this field to:

$$\lceil (pilot\_power\_threshold + 115) \rceil$$

where *pilot\_power\_threshold* is the pilot power,  $E_c$ , in dBm/1.23 MHz, below which the mobile station is to perform system reselection.

EC\_IO\_THRESH - Pilot  $E_c / I_o$  threshold.  
If RESELECTINCLUDED is included and is set to ‘1’, the base station shall include the field EC\_IO\_THRESH and shall set this field as shown below; otherwise, the base station shall omit this field.

1           The base station shall set this field to:

$$2 \quad \lfloor - 20 \times \log_{10} (\text{pilot\_threshold}) \rfloor$$

3           where *pilot\_threshold* is the pilot  $E_c/I_0$  below which the mobile  
4           station is to perform system reselection.

- 5           BASE\_LAT     - Base station latitude.  
6           If CCH\_INFO\_INCL is set to '1', the base station shall include  
7           this field and set it as shown below; otherwise, the base  
8           station shall omit this field.

9           The base station shall set this field to its latitude in units of  
10          0.25 second, expressed as a two's complement signed number  
11          with positive numbers signifying North latitudes. The base  
12          station shall set this field to a value in the range -1296000 to  
13          1296000 inclusive (corresponding to a range of -90° to +90°).

- 14          BASE\_LONG    - Base station longitude.  
15          If CCH\_INFO\_INCL is set to '1', the base station shall include  
16          this field and set it as shown below; otherwise, the base  
17          station shall omit this field.

18          The base station shall set this field to its longitude in units of  
19          0.25 second, expressed as a two's complement signed number  
20          with positive numbers signifying East longitude. The base  
21          station shall set this field to a value in the range -2592000 to  
22          2592000 inclusive (corresponding to a range of -180° to  
23          +180°).

- 24          PILOT\_REPORT - Pilot reporting indicator.  
25          If CCH\_INFO\_INCL is set to '1', the base station shall include  
26          the field PILOT\_REPORT and shall set this field as shown  
27          below; otherwise, the base station shall omit this field.

28          The base station shall set this field to '1' if the mobile station  
29          is to report the additional pilots which have pilot strengths  
30          exceeding T\_ADD in all Enhanced Access Channel messages.  
31          The base station shall set this field to '0' if the mobile station  
32          is to report the additional pilots which have pilot strengths  
33          exceeding T\_ADD only in the *Origination Message* and the  
34          *Page Response Message*.

- 35          ACC\_ENT\_HO\_ORDER - Access entry handoff permitted indicator.  
36          If CCH\_INFO\_INCL is set to '1', the base station shall include  
37          this field and set it as described below; otherwise, the base  
38          station shall omit this field.

39          The base station shall set this field to '1' if the mobile station  
40          is permitted to perform an access entry handoff after receiving  
41          a message while performing the *Mobile Station Order and*  
42          *Message Processing Operation* in the *Mobile Station Idle State*  
43          (see 2.6.2.4); otherwise, the base station shall set this field to  
44          '0'.

- 1           ACCESS\_HO    - Access handoff permitted indicator.  
 2           If CCH\_INFO\_INCL is set to '1', the base station shall include  
 3           this field and set it as described below; otherwise, the base  
 4           station shall omit this field.  
 5           The base station shall set this field to '1' if the mobile station  
 6           is permitted to perform an access handoff (see 2.6.3.1.3.2);  
 7           otherwise, the base station shall set this field to '0'.  
 8   ACCESS\_HO\_MSG\_RSP - Access handoff permitted for message response indicator.  
 9           If ACCESS\_HO is included and set to '1', the base station shall  
 10          include this field and set it as described below; otherwise, the  
 11          base station shall omit this field.  
 12          The base station shall set this field to '1' if the mobile station  
 13          is permitted to perform an access handoff after receiving a  
 14          message and before responding to that message in the *System*  
 15          *Access State*; otherwise, the base station shall set this field to  
 16          '0'.  
 17   ACCESS\_PROBE\_HO   - Access probe handoff permitted indicator.  
 18          If CCH\_INFO\_INCL is set to '1', the base station shall include  
 19          this field and set it as described below; otherwise, the base  
 20          station shall omit this field.  
 21          The base station shall set this field to '1' if the mobile station  
 22          is permitted to perform an access probe handoff (see  
 23          2.6.3.1.3.3); otherwise, the base station shall set this field to  
 24          '0'.  
 25   ACC\_HO\_LIST\_UPD   - Access handoff list update permitted indicator.  
 26          If ACCESS\_PROBE\_HO is included and is set to '1', the base  
 27          station shall include this field and set it as described below;  
 28          otherwise, the base station shall omit this field.  
 29          The base station shall set this field to '1' if the mobile station  
 30          is permitted to update the access handoff list during an  
 31          access attempt (see 2.6.3.1.7.2); otherwise, the base station  
 32          shall set this field to '0'.  
 33   ACC\_PROBE\_HO-  
 34        \_OTHER\_MSG    - Access probe handoff permitted for messages other than the  
 35        *Origination Message* and the *Page Response Message*.  
 36          If ACCESS\_PROBE\_HO is included and set to '1', the base  
 37          station shall include this field and set it as described below;  
 38          otherwise, the base station shall omit this field.  
 39          The base station shall set this field to '1' if the mobile station  
 40          is permitted to perform an access probe handoff for messages  
 41          other than the *Origination Message* and the *Page Response*  
 42          *Message*. The base station shall set this field to '0' if the  
 43          mobile station is permitted to perform an access probe  
 44          handoff only for the *Origination Message* and the *Page*  
 45          *Response Message*. See 2.6.3.1.3.3.  
 46   MAX\_NUM\_PROBE\_HO - Maximum number of times that the mobile station is  
 47          permitted to perform an access probe handoff.

1           If ACCESS\_PROBE\_HO is included and set to ‘1’, the base  
 2           station shall include this field and set it as described below;  
 3           otherwise, the base station shall omit this field.

4           The base station shall set this field to the maximum number  
 5           of times the mobile station is allowed to perform an access  
 6           probe handoff within an access attempt minus one.

- 7           NUM\_FCCCH    - Total number of Forward Common Control Channels.  
 8           If CCH\_INFO\_INCL is set to ‘1’, the base station shall include  
 9           this field and shall set it as shown below; otherwise, the base  
 10          station shall omit this field.  
 11          The base station shall set this field to the total number of  
 12          Forward Common Control Channels on this CDMA Channel.  
 13          If this is not a pilot beacon base station, the base station shall  
 14          set this field to an integer value greater than 0.

- 15          FCCCH\_RATE    - Rate words for the Forward Common Control Channels.  
 16          If CCH\_INFO\_INCL is set to ‘1’and NUM\_FCCCH is not  
 17          equal to ‘0’, the base station shall include this field and shall  
 18          set it as shown below; otherwise, the base station shall omit  
 19          this field.

20          The base station shall set this field to the FCCCH rate field  
 21          value shown in Table 3.7.2.3.2.31-1 corresponding to the data  
 22          rate used on the Forward Common Control Channels in the  
 23          system.

24           **Table 3.7.2.3.2.31-1. Forward Common Control Channel**  
 25           **Rate Words**

| FCCCH Rate Field<br>(binary) | Forward Common Control<br>Channel rate word |
|------------------------------|---------------------------------------------|
| 000                          | 9600 bps, 20 ms frame size                  |
| 001                          | 19200 bps, 20 ms frame size                 |
| 010                          | 19200 bps, 10 ms frame size                 |
| 011                          | 38400 bps, 20 ms frame size                 |
| 100                          | 38400 bps, 10 ms frame size                 |
| 101                          | 38400 bps, 5 ms frame size                  |
| 110 – 111                    | Reserved                                    |

- 26
- 27          FCCCH\_CODE\_RATE    - Code Rate for the Forward Common Control Channels.  
 28          If CCH\_INFO\_INCL is set to ‘1’and NUM\_FCCCH is not  
 29          equal to ‘0’, the base station shall include this field and shall  
 30          set it as shown below; otherwise, the base station shall omit

1                   this field.

2                   If the FCCCH is operating in Spreading Rate 1, the base  
 3                   station shall set this field to '0' if the FCCCH Code Rate is 1/4  
 4                   (see 3.1.3.1.2.1 of [2]). The base station shall set this field to  
 5                   '1' if the FCCCH Code Rate is 1/2 (see 3.1.3.1.2.1 of [2]).

6                   If the FCCCH is operating in Spreading Rate 3, the base  
 7                   station shall set this field to '0'.

8       The base station shall include NUM\_FCCCH occurrences of the following one field record:

9       FCCCH\_CODE\_CHAN - Code channel index for the Forward Common Control  
 10                  Channel.

11                  The base station shall set this field to the code channel index  
 12                  (see [2]) in the range 1 to 256 inclusive that the mobile station  
 13                  is to use on the Forward Common Control Channel.

14       BCAST\_INDEX - Broadcast index.

15                  If CCH\_INFO\_INCL is set to '1', the base station shall include  
 16                  the field BCAST\_INDEX and shall set this field as shown  
 17                  below; otherwise, the base station shall omit this field.

18                  If Periodic Enhanced Broadcast Paging is disabled, the base  
 19                  station shall set this field to '000'; otherwise, the base station  
 20                  shall set this field to the Broadcast Index (see  
 21                  2.6.2.1.1.3.3.[24](#)).

22       NUM\_BCCH\_BCAST - The number of Broadcast Control Channels used for  
 23                  transmitting broadcast messages.

24                  If CCH\_INFO\_INCL is set to '1', the base station shall include  
 25                  this field and set it as shown below; otherwise, the base  
 26                  station shall omit this field.

27                  If the base station supports transmission of broadcast  
 28                  messages, the base station shall set this field to the number of  
 29                  Broadcast Control Channels used for transmitting broadcast  
 30                  messages. If the base station supports transmission of  
 31                  broadcast messages, the base station shall not set this field to  
 32                  '000'.

33       If the NUM\_BCCH\_BCAST field is included, the base station shall set NUM\_BCCH\_BCAST  
 34       occurrences of the following three-field record, where the ith occurrence corresponds to a  
 35       BCCH indexed by BCN of i+1:

36       BCCH\_CODE\_CHAN - The Walsh Code index for the Broadcast Control Channel  
 37                  specified by BCCH\_ID.

38                  The base station shall set this field to the Walsh code  
 39                  corresponding to the Broadcast Control Channel specified by  
 40                  BCCH\_ID.

41       BRAT - BCCH data rate.

42                  The base station shall set this field to the BRAT field value  
 43                  shown in Table 3.7.2.3.2.31-2 corresponding to the data rate  
 44                  used by the Broadcast Control Channel to which the mobile  
 45                  station is being directed.

**Table 3.7.2.3.2.31-2. Broadcast Control Channel Data Rate**

| <b>BRAT Field (binary)</b> | <b>Broadcast Control Channel data rate</b> |
|----------------------------|--------------------------------------------|
| 00                         | 4800 bps                                   |
| 01                         | 9600 bps                                   |
| 10                         | 19200 bps                                  |
| 11                         | Reserved                                   |

- BCCH\_CODE\_RATE - BCCH code rate.  
For spreading rate 1, the base station shall set this field to '0' if the BCCH Code Rate is 1/4 (see 3.1.3.1.2.1 of [2]). For spreading rate 1, the base station shall set this field to '1' if the BCCH code rate is 1/2 (see 3.1.3.1.2.1 of [2]). For spreading rate 3, the base station shall set this field to '0'.
- QPCH\_SUPPORTED - Quick Paging Channel Supported Indication.  
If CCH\_INFO\_INCL is set to '1', the base station shall include the field QPCH\_SUPPORTED and shall set this field as shown below; otherwise, the base station shall omit this field.  
If the base station supports Quick Paging Channel operation, the base station shall set this field to '1'; otherwise the base station shall set this field to '0'.
- NUM\_QPCH - Number of Quick Paging Channels.  
If QPCH\_SUPPORTED is included and set to '1', the base station shall include this field and set it as described below; otherwise, the base station shall omit this field.  
The base station shall set this field to the number of Quick Paging Channels on this CDMA Channel. The base station shall not set this field to '00'.
- QPCH\_RATE - Quick Paging Channel indicator rate.  
If QPCH\_SUPPORTED is included and set to '1', the base station shall include this field and set it as described below; otherwise, the base station shall omit this field.  
The base station shall set this field to the QPCH\_RATE field value shown in Table 3.7.2.3.2.13-2 corresponding to the indicator rate used by the Quick Paging Channel in the system.
- QPCH\_POWER-  
\_LEVEL\_PAGE - Quick Paging Channel paging indicator transmit power level.  
If QPCH\_SUPPORTED is included and set to '1', the base station shall include this field and set it as described below; otherwise, the base station shall omit this field.

The base station shall set this field to the Quick Paging Channel paging indicator transmit power level relative to that of the Pilot Channel as specified in Table 3.7.2.3.2.31-3.

**Table 3.7.2.3.2.31-3. Quick Paging Channel Transmit Power Level**

| <b>QPCH_POWER_LEVEL_PAGE</b><br><b>QPCH_POWER_LEVEL_CONFIG</b><br><b>QPCH_POWER_LEVEL_BCAST</b><br><b>(binary)</b> | <b>Transmit Power Level</b>                 |
|--------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| 000                                                                                                                | 5 dB below the Pilot Channel Transmit Power |
| 001                                                                                                                | 4 dB below the Pilot Channel Transmit Power |
| 010                                                                                                                | 3 dB below the Pilot Channel Transmit Power |
| 011                                                                                                                | 2 dB below the Pilot Channel Transmit Power |
| 100                                                                                                                | 1 dB below the Pilot Channel Transmit Power |
| 101                                                                                                                | Same as the Pilot Channel Transmit Power    |
| 110                                                                                                                | 1 dB above the Pilot Channel Transmit Power |
| 111                                                                                                                | 2 dB above the Pilot Channel Transmit Power |

**QPCH\_CCI\_SUPPORTED** - Quick Paging Channel configuration change indicator supported.

If QPCH\_SUPPORTED is included and set to ‘1’, the base station shall include this field and set it as described below; otherwise, the base station shall omit this field.

If the base station supports configuration change indicators on the Quick Paging Channel, the base station shall set this field to '1'; otherwise the base station shall set this field to '0'.

**QPCH\_POWER\_LEVEL\_CONFIG** - Quick Paging Channel configuration change indicator transmit power level.

If QPCH\_CCI\_SUPPORTED is included and set to '1', the base station shall include this field and set it as described below; otherwise, the base station shall omit this field.

1                   The base station shall set this field to the Quick Paging  
 2                   Channel configuration change indicator transmit power level  
 3                   relative to that of the Pilot Channel as specified in Table  
 4                   3.7.2.3.2.31-3.

5                   If the base station is operating in Spreading Rate 3 BCCH channel, the base station shall  
 6                   include NUM\_QPCH occurrences of the following one field record:

7                   QPCH\_CODE\_CHAN - Code channel index of the Quick Paging Channel for  
 8                   Spreading Rate 3.

9                   The base station shall set this field to the code channel index  
 10                  (see [2]) in the range 1 to 256 inclusive that the mobile station  
 11                  is to use on the Quick Paging Channel for Spreading Rate 3.

12  
 13                  QPCH BI\_SUPPORTED - Quick Paging Channel broadcast indicator supported.  
 14                  If QPCH\_SUPPORTED is included and set to '1', the base  
 15                  station shall include this field and set it as described below;  
 16                  otherwise, the base station shall omit this field.  
 17                  If the base station supports broadcast indicators on the Quick  
 18                  Paging Channel, the base station shall set this field to '1';  
 19                  otherwise the base station shall set this field to '0'.

20                  QPCH\_POWER\_LEVEL- - Quick Paging Channel broadcast indicator  
 21                  \_BCAST transmit power level.  
 22                  If QPCH BI\_SUPPORTED is included and set to '1', the base  
 23                  station shall include this field and set it as described below;  
 24                  otherwise, the base station shall omit this field.

25                  The base station shall set this field to the Quick Paging  
 26                  Channel broadcast indicator transmit power level relative to  
 27                  that of the Pilot Channel as specified in Table 3.7.2.3.2.31-3.

28                  SDB\_SUPPORTED - Short Data Burst supported indicator.  
 29                  If CCH\_INFO\_INCL is set to '1', the base station shall include  
 30                  the field SDB\_SUPPORTED and shall set this field as shown  
 31                  below; otherwise, the base station shall omit this field.

32                  The base station shall set this field to '1' if the mobile station  
 33                  is permitted to send a Short Data Burst; otherwise, the base  
 34                  station shall set this field to '0'.

35                  BROADCAST\_GPS\_ASST - Broadcast GPS Assist Indicator.  
 36                  If CCH\_INFO\_INCL is set to '1', the base station shall include  
 37                  the field BROADCAST\_GPS\_ASST and shall set this field as  
 38                  shown below; otherwise, the base station shall omit this field.

39                  The base station shall set this field to '1' if it supports  
 40                  Broadcast GPS Assist capability; otherwise, the base station  
 41                  shall set this field to '0'.

42                  RLGAIN\_TRAFFIC\_PILOT - Gain adjustment of the Reverse Traffic Channel relative to the  
 43                  Reverse Pilot Channel for Radio Configurations greater than 2.

If CCH\_INFO\_INCL is set to ‘1’, the base station shall include the field RLGAIN\_TRAFFIC\_PILOT and shall set this field as shown below; otherwise, the base station shall omit this field.

The base station shall set this field to the correction factor to be used by mobile stations in setting the power of a reverse traffic channel, expressed as a two’s complement value in units of 0.125 dB (see 2.1.2.3.3 of [2]).

- REV\_PWR-CNTL\_DELAY\_INCL - Reverse Power Control Delay included indicator.  
If CCH\_INFO\_INCL is set to ‘1’, the base station shall include this field and set it as shown below; otherwise, the base station shall omit this field.  
The base station shall set this field to ‘1’ if the base station includes the REV\_PWR\_CNTL\_DELAY field in this message; otherwise, the base station shall set this field to ‘0’.
- REV\_PWR-CNTL\_DELAY - The reverse power control delay.  
If REV\_PWR\_CNTL\_DELAY\_INCL is included and set to ‘1’, the base station shall include this field and set it as follows; otherwise, the base station shall omit this field.  
The base station shall set this field to the closed-loop reverse power control delay minus one (the closed-loop reverse power control delay is the time between the end of a gated-on reverse PCG and the beginning of the reverse PCG where the corresponding feedback is sent on the Forward Power Control Subchannel, see 2.1.2.3.2 of [2]), in units of 1.25 ms.
- MOB\_QOS - Indicator granting permission to the mobile station to request QoS parameter settings in the *Origination Message*, *Origination Continuation Message*, or *Enhanced Origination Message*.  
If CCH\_INFO\_INCL is set to ‘1’, the base station shall include this field and set it as shown below; otherwise, the base station shall omit this field.  
The base station shall set this field to ‘1’, if the mobile station is allowed to include a QoS record in the *Origination Message*, *Origination Continuation Message*, or *Enhanced Origination Message*; or to ‘0’, otherwise, the base station shall set this field to ‘0’.
- USE\_SYNC\_ID - Sync ID supported indicator.  
If CCH\_INFO\_INCL is set to ‘1’, the base station shall include this field and set it as shown below; otherwise, the base station shall omit this field.  
The base station shall set this field to ‘1’ to indicate that the mobile station is permitted to include the SYNC\_ID field in the *Page Response Message* and the *Origination Message*. Otherwise, the base station shall set this field to ‘0’.

- 1           NUM\_OPT\_MSG     - Number of optional overhead messages to be sent.  
 2                           If CCH\_INFO\_INCL is set to '1', the base station shall include  
 3                           this field and shall set this field as shown below; otherwise,  
 4                           the base station shall omit this field.  
 5                           The base station shall set this field to the number of optional  
 6                           overhead messages to be sent.
- 7           SENDING\_RAND     - ANSI-41 RAND Message indicator.  
 8                           If NUM\_OPT\_MSG is included and is equal to or greater than  
 9                           1, the base station shall include the field SENDING\_RAND and  
 10                          shall set this field as shown below; otherwise, the base station  
 11                          shall omit this field.  
 12                           If the base station is sending the *ANSI-41 RAND Message* on  
 13                          the Primary Broadcast Control Channel, it shall set this field  
 14                          to '1'; otherwise, it shall set this field to '0'.
- 15           PRI\_NGHBR\_LIST     - *Private Neighbor List Message* indicator.  
 16                           If NUM\_OPT\_MSG is included and is equal to or greater than  
 17                           2, the base station shall include the field PRI\_NGHBR\_LIST and  
 18                          shall set this field as shown below; otherwise, the base station  
 19                          shall omit this field.  
 20                           If the base station is sending the *Private Neighbor List Message*  
 21                          on the Primary Broadcast Control Channel, it shall set this field to  
 22                          '1'; otherwise, it shall set this field to '0'.
- 23           USER\_ZONE\_ID     - *User Zone Identification Message* indicator.  
 24                           If NUM\_OPT\_MSG is included and is equal to or greater than  
 25                           3, the base station shall include the field USER\_ZONE\_ID and  
 26                          shall set this field as shown below; otherwise, the base station  
 27                          shall omit this field.  
 28                           If the base station is sending the *User Zone Identification  
 29                          Message* on the Primary Broadcast Control Channel, it shall set this field  
 30                          to '1'; otherwise, it shall set this field to '0'.
- 31           EXT\_GLOBAL-  
 32                           \_REDIRECT     - Extended Global Service Redirection Message indicator.  
 33                           If NUM\_OPT\_MSG is included and is equal to or greater than  
 34                           4, the base station shall include the field  
 35                           EXT\_GLOBAL\_REDIRECT and shall set this field as shown  
 36                          below; otherwise, the base station shall omit this field.  
 37                           If the base station is sending the *Extended Global Service  
 38                          Redirection Message* on the Primary Broadcast Control  
 39                          Channel, it shall set this field to '1'; otherwise, the base  
 40                          station shall set this field to '0'.
- 41           RESERVED     - Reserved bits.  
 42                           If NUM\_OPT\_MSG is included and is equal to or greater than  
 43                           5, the base station shall include the field RESERVED and  
 44                          shall set this field as shown below; otherwise, the base station  
 45                          shall omit this field.

1                   The base station shall add (NUM\_OPT\_MSG – 4) reserved bits.  
2                   The base station shall set these bits to '0'.

3                   PILOT INFO REQ

4                   SUPPORTED - Pilot information request supported indicator.

5                   If CCH INFO INCL is set to '1', the base station shall include  
6                   this field and set it as shown below; otherwise, the base  
7                   station shall omit this field.

8                   If the base station supports mobile station request for pilot  
9                   information using the "Pilot Information" record in the *Base*  
10                  *Station Status Request Message*, the base station shall set this  
11                  field to '1'; otherwise, the base station shall set this field to '0'.

12

13

## 1    3.7.2.3.2.32 ANSI-41 RAND Message

2    MSG\_TAG: A41RANDM

3

| <b>Field</b> | <b>Length (bits)</b> |
|--------------|----------------------|
| PILOT_PN     | 9                    |
| RESERVED     | 6                    |
| RAND         | 32                   |

4

- 5            PILOT\_PN    -    Pilot PN sequence offset index.  
                The base station shall set this field to the pilot PN sequence  
                offset for this base station, in units of 64 PN chips.
- 6            RESERVED    -    Reserved bits.  
                The base station shall set this field to '000000'.
- 7            RAND        -    Random challenge value.  
                The base station shall set this field to the random challenge  
                value to be used by mobile stations for authentication.

## 1 3.7.2.3.2.33 Enhanced Access Parameters Message

## 2 MSG\_TAG: EAPM

3

| Field       | Length (bits) |
|-------------|---------------|
| PILOT_PN    | 9             |
| ACC_MSG_SEQ | 6             |

|                  |                   |
|------------------|-------------------|
| PSIST_PARMS_INCL | 1                 |
| PSIST_PARMS_LEN  | 0 or 5            |
| PSIST(0-9)_EACH  | 0 or 6            |
| PSIST(10)_EACH   | 0 or 3            |
| PSIST(11)_EACH   | 0 or 3            |
| PSIST(12)_EACH   | 0 or 3            |
| PSIST(13)_EACH   | 0 or 3            |
| PSIST(14)_EACH   | 0 or 3            |
| PSIST(15)_EACH   | 0 or 3            |
| PSIST_EMG        | 0 or 3            |
| MSG_PSIST_EACH   | 0 or 3            |
| REG_PSIST_EACH   | 0 or 3            |
| RESERVED         | 0 – 7 (as needed) |

|                                |                   |
|--------------------------------|-------------------|
| LAC_PARMS_LEN                  | 4                 |
| ACC_TMO                        | 6                 |
| <u>PROBE_PN_RAN_RESERVED_1</u> | 4                 |
| MAX_REQ_SEQ                    | 4                 |
| MAX_RSP_SEQ                    | 4                 |
| RESERVED                       | 0 – 7 (as needed) |

4

(continues on next page)

1

| <b>Field</b>               | <b>Length (bits)</b> |
|----------------------------|----------------------|
| NUM_MODE_SELECTION_ENTRIES | 3                    |

NUM\_MODE\_SELECTION\_ENTRIES + 1 occurrences of the following record:

|                          |    |
|--------------------------|----|
| ACCESS_MODE              | 3  |
| ACCESS_MODE_MIN_DURATION | 10 |
| ACCESS_MODE_MAX_DURATION | 10 |

|                     |   |
|---------------------|---|
| RLGAIN_COMMON_PILOT | 6 |
| IC_THRESH           | 4 |
| IC_MAX              | 4 |
| NUM_MODE_PARM_REC   | 3 |

NUM\_MODE\_PARM\_REC + 1 occurrences of the following record:

|                                    |        |
|------------------------------------|--------|
| EACH_PARM_REC_LEN                  | 4      |
| APPLICABLE_MODES                   | 8      |
| EACH_NOM_PWR                       | 5      |
| EACH_INIT_PWR                      | 5      |
| EACH_PWR_STEP                      | 3      |
| EACH_NUM_STEP                      | 4      |
| EACH_PREAMBLE_ENABLED              | 1      |
| EACH_PREAMBLE_NUM_FRAC             | 0 or 4 |
| EACH_PREAMBLE_FRAC_DURATION        | 0 or 4 |
| EACH_PREAMBLE_OFF_DURATION         | 0 or 4 |
| EACH_PREAMBLE_ADD_DURATION         | 0 or 4 |
| <u>EACH_ACCESS_THRESH_RESERVED</u> | 6      |
| EACH_PROBE_BKOFF                   | 4      |
| EACH_BKOFF                         | 4      |
| EACH_SLOT                          | 6      |
| EACH_SLOT_OFFSET1                  | 6      |

2

(continues on next page)

1

| <b>Field</b>      | <b>Length (bits)</b> |
|-------------------|----------------------|
| EACH_SLOT_OFFSET2 | 6                    |
| RESERVED          | 0 – 7 (as needed)    |

|                         |                   |
|-------------------------|-------------------|
| BA_PARMS_LEN            | <u>32</u>         |
| NUM_EACH_BA             | <u>0 or</u> 5     |
| EACH_BA_RATES_SUPPORTED | <u>0 or</u> 8     |
| RESERVED                | 0 – 7 (as needed) |

|                |               |
|----------------|---------------|
| RA_PARMS_LEN   | 5             |
| NUM_EACH_RA    | <u>0 or</u> 5 |
| NUM_CACH       | <u>0 or</u> 3 |
| CACH_CODE_RATE | <u>0 or</u> 1 |

If RA\_PARMS\_LEN is not equal to '00000', the base station shall include (NUM\_CACH + 1) occurrences of the following one field record:

|                |   |
|----------------|---|
| CACH_CODE_CHAN | 8 |
|----------------|---|

|                              |               |
|------------------------------|---------------|
| NUM_RCCCH                    | <u>0 or</u> 5 |
| RCCCH_RATES_SUPPORTED        | <u>0 or</u> 8 |
| RCCCH_PREAMBLE_ENABLED       | <u>0 or</u> 1 |
| RCCCH_PREAMBLE_NUM_FRAC      | 0 or 4        |
| RCCCH_PREAMBLE_FRAC_DURATION | 0 or 4        |
| RCCCH_PREAMBLE_OFF_DURATION  | 0 or 4        |
| RCCCH_PREAMBLE_ADD_DURATION  | 0 or 4        |
| RCCCH_SLOT                   | <u>0 or</u> 6 |
| RCCCH_SLOT_OFFSET1           | <u>0 or</u> 6 |
| RCCCH_SLOT_OFFSET2           | <u>0 or</u> 6 |
| RCCCH_NOM_PWR                | <u>0 or</u> 5 |
| RCCCH_INIT_PWR               | <u>0 or</u> 5 |
| RA_PC_DELAY                  | <u>0 or</u> 5 |

2

(continues on next page)

1

| Field              | Length (bits) |
|--------------------|---------------|
| EACAM_CACH_DELAY   | <u>0 or 4</u> |
| RCCCH_HO_SUPPORTED | <u>0 or 1</u> |
| RCCCH_HO_THRESH    | 0 or 4        |
| EACAM_PCCAM_DELAY  | 0 or 5        |
| NUM_CPCCH          | <u>0 or 2</u> |
| CPCCH_RATE         | <u>0 or 2</u> |

If RA\_PARMS\_LEN is not equal to '00000', the base station shall include (NUM\_CPCCH + 1) occurrences of the following one field record:

|                 |   |
|-----------------|---|
| CPCCH_CODE_CHAN | 8 |
|-----------------|---|

|              |                   |
|--------------|-------------------|
| NUM_PCSCH_RA | <u>0 or 7</u>     |
| RESERVED     | 0 – 7 (as needed) |

|                             |               |
|-----------------------------|---------------|
| <u>ACCT_INCL</u>            | <u>1</u>      |
| <u>ACCT_INCL_EMG</u>        | <u>0 or 1</u> |
| <u>ACCT_AOC_BITMAP_INCL</u> | <u>0 or 1</u> |
| <u>ACCT_SO_INCL</u>         | <u>0 or 1</u> |
| <u>NUM_ACCT_SO</u>          | <u>0 or 4</u> |

If ACCT\_SO\_INCL is equal to '1', NUM\_ACCT\_SO + 1 occurrences of the following variable-field record:

|                         |               |
|-------------------------|---------------|
| <u>ACCT_AOC_BITMAP1</u> | <u>0 or 5</u> |
| <u>ACCT_SO</u>          | <u>16</u>     |

|                         |               |
|-------------------------|---------------|
| <u>ACCT_SO_GRP_INCL</u> | <u>0 or 1</u> |
| <u>NUM_ACCT_SO_GRP</u>  | <u>0 or 3</u> |

If ACCT\_SO\_GRP\_INCL is equal to '1', NUM\_ACCT\_SO\_GRP + 1 occurrences of the following variable-field record:

|                         |               |
|-------------------------|---------------|
| <u>ACCT_AOC_BITMAP2</u> | <u>0 or 5</u> |
| <u>ACCT_SO_GRP</u>      | <u>5</u>      |

2

3

PILOT\_PN - Pilot PN sequence offset index.

- |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                  | The base station shall set this field to the pilot PN sequence offset for this base station, in units of 64 PN chips.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| ACC_MSG_SEQ      | <ul style="list-style-type: none"> <li>- Enhanced Access Parameters Message sequence number.<br/>The base station shall set this field to ACC_CONFIG_SEQ (see 2.6.2.2.15).</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| PSIST_PARMS_INCL | <ul style="list-style-type: none"> <li>- Persistence parameters included indicator.<br/>If persistence parameters are included in this message, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.</li> </ul>                                                                                                                                                                                                                                                                                                                                                              |
| PSIST_PARMS_LEN  | <ul style="list-style-type: none"> <li>- Length of persistence parameters record.<br/>If PSIST_PARMS_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field to the total length, in octets, of persistence parameters included in the message, including the PSIST_PARMS_LEN and RESERVED fields.</li> </ul>                                                                                                                                                                                                                                                             |
| PSIST(0-9)_EACH  | <ul style="list-style-type: none"> <li>- Persistence value for access overload classes 0 through 9.<br/>If PSIST_PARMS_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:<br/><br/>If a mobile station in access overload classes 0 through 9 is permitted to transmit requests on the Enhanced Access Channel, the base station shall set this field to the persistence value to be used. If such a mobile stations is not permitted to transmit requests on the Enhanced Access Channel, the base station shall set this field to '111111'.</li> </ul> |
| PSIST(10)_EACH   | <ul style="list-style-type: none"> <li>- Persistence value for access overload class 10 (test mobile stations).<br/>If PSIST_PARMS_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:<br/><br/>If a mobile station in access overload class 10 is permitted to transmit requests on the Enhanced Access Channel, the base station shall set this field to the persistence value to be used. If such a mobile station is not permitted to transmit requests on the Enhanced Access Channel, the base station shall set this field to '111'.</li> </ul>    |
| PSIST(11)_EACH   | <ul style="list-style-type: none"> <li>- Persistence value for access overload class 11 (emergency mobile stations).<br/>If PSIST_PARMS_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:</li> </ul>                                                                                                                                                                                                                                                                                                                                                    |

1                   If a mobile station in access overload class 11 is permitted to  
 2 transmit requests on the Enhanced Access Channel, the base  
 3 station shall set this field to the persistence value to be used.  
 4 If such a mobile station is not permitted to transmit requests  
 5 on the Enhanced Access Channel, the base station shall set  
 6 this field to '111'.

- 7           PSIST(12)\_EACH     - Persistence value for access overload class 12.  
 8                   If PSIST\_PARMS\_INCL is set to '0', the base station shall omit  
 9 this field; otherwise, the base station shall set this field as  
 10 follows:

11                  If a mobile station in access overload class 12 is permitted to  
 12 transmit requests on the Enhanced Access Channel, the base  
 13 station shall set this field to the persistence value to be used.  
 14 If such a mobile station is not permitted to transmit requests  
 15 on the Enhanced Access Channel, the base station shall set  
 16 this field to '111'.

- 17           PSIST(13)\_EACH     - Persistence value for access overload class 13.  
 18                   If PSIST\_PARMS\_INCL is set to '0', the base station shall omit  
 19 this field; otherwise, the base station shall set this field as  
 20 follows:

21                  If a mobile station in access overload class 13 is permitted to  
 22 transmit requests on the Enhanced Access Channel, the base  
 23 station shall set this field to the persistence value to be used.  
 24 If such a mobile station is not permitted to transmit requests  
 25 on the Enhanced Access Channel, the base station shall set  
 26 this field to '111'.

- 27           PSIST(14)\_EACH     - Persistence value for access overload class 14.  
 28                   If PSIST\_PARMS\_INCL is set to '0', the base station shall omit  
 29 this field; otherwise, the base station shall set this field as  
 30 follows:

31                  If a mobile station in access overload class 14 is permitted to  
 32 transmit requests on the Enhanced Access Channel, the base  
 33 station shall set this field to the persistence value to be used.  
 34 If such a mobile station is not permitted to transmit requests  
 35 on the Enhanced Access Channel, the base station shall set  
 36 this field to '111'.

- 37           PSIST(15)\_EACH     - Persistence value for access overload class 15.  
 38                   If PSIST\_PARMS\_INCL is set to '0', the base station shall omit  
 39 this field; otherwise, the base station shall set this field as  
 40 follows:

41                  If a mobile station in access overload class 15 is permitted to  
 42 transmit requests on the Enhanced Access Channel, the base  
 43 station shall set this field to the persistence value to be used.  
 44 If such a mobile stations is not permitted to transmit requests  
 45 on the Enhanced Access Channel, the base station shall set  
 46 this field to '111'.

1           PSIST\_EMG    - Persistence value for emergency call for access overload  
 2           classes 0 through 9.

3           If PSIST\_PARMS\_INCL is set to '0', the base station shall omit  
 4           this field; otherwise, the base station shall set this field as  
 5           follows:

6           If a mobile station in access overload classes 0 through 9 is  
 7           permitted to transmit emergency requests on the Enhanced  
 8           Access Channel, the base station shall set this field to the  
 9           persistence value to be used for the emergency calls. If such a  
 10          mobile station is not permitted to transmit emergency  
 11          requests on the Enhanced Access Channel, the base station  
 12          shall set this field to '111'.

13          MSG\_PSIST\_EACH    - Persistence modifier for Enhanced Access Channel attempts  
 14          for message transmissions.

15          If PSIST\_PARMS\_INCL is set to '0', the base station shall omit  
 16          this field; otherwise, the base station shall set this field to the  
 17          persistence modifier for Enhanced Access Channel attempts  
 18          for message transmissions.

19          REG\_PSIST\_EACH    - Persistence modifier for Enhanced Access Channel attempts  
 20          for registrations which are not responses to the *Registration  
 21          Request Order*.

22          If PSIST\_PARMS\_INCL is set to '0', the base station shall omit  
 23          this field; otherwise, the base station shall set this field to the  
 24          persistence modifier for Enhanced Access Channel attempts  
 25          for registrations which are not responses to the *Registration  
 26          Request Order*.

27          RESERVED    - Reserved bits.

28          If PSIST\_PARMS\_INCL is set to '0', the base station shall omit  
 29          this field; otherwise, the base station shall include as many  
 30          bits as required to make the length of the persistence  
 31          parameters record an integral number of octets. If this field is  
 32          included, the base station shall set each of these bits to '0'.

34          LAC\_PARMS\_LEN    - Length of Link Access Control parameter fields.

35          The base station shall set this field to the total length, in  
 36          octets, of Link Access Control parameters included in the  
 37          message, including the LAC\_PARMS\_LEN and RESERVED  
 38          fields.

39          ACC\_TMO    - Acknowledgment timeout.

40          The base station shall set this field to one less than the length  
 41          of time, in units of 20 ms, that a mobile station is to wait to  
 42          receive a Layer 2 acknowledgment after the end of an  
 43          Enhanced Access Channel transmission.

44          PROBE\_PN\_RAN    Time randomization for Enhanced Access Channel probes.

1                   The base station shall set this field to the value in the range 0  
 2                   to 9 inclusive, so that the time randomization range to be  
 3                   used by a mobile station is 0 to  $2^{\text{PROBE\_PN\_RAN\_EACH}} - 1$  PN  
 4                   chips.

5            RESERVED\_1    -    The reserved bits

6                   The base station shall set this field to '0000'

7            MAX\_REQ\_SEQ   -    Maximum number of access probe sequences for an Enhanced  
 8                   Access Channel request.

9                   The base station shall set this field to the maximum number  
 10                  of access probe sequences a mobile station is to transmit for  
 11                  an Enhanced Access Channel request. The base station shall  
 12                  set this field to a value greater than 0.

13            MAX\_RSP\_SEQ   -    Maximum number of access probe sequences for an Enhanced  
 14                  Access Channel response.

15                   The base station shall set this field to the maximum number  
 16                  of access probe sequences a mobile station is to transmit for  
 17                  an Enhanced Access Channel response. The base station shall  
 18                  set this field to a value greater than 0.

19            RESERVED      -    Reserved Bits.

20                   The base station shall include as many bits as required to  
 21                  make the length of the Link Access Control parameters record  
 22                  an integral number of octets. The base station shall set each  
 23                  of these bits to '0'.

24            NUM\_MODE\_

25            SELECTION\_ENTRIES   -    Number of entries of the Mode Selection Table.

26                   The base station shall set this field to the number of entries of  
 27                  the Mode Selection Table, minus one.

28                   The base station shall include NUM\_MODE\_SELECTION\_ENTRIES + 1 occurrences of the  
 29                  following three-field record:

30            ACCESS\_MODE      -    Access Mode used for the Enhanced Access Channel.

31                   The base station shall set this field to the Access Mode value  
 32                  shown in Table 3.7.2.3.2.33-1 corresponding to the Access  
 33                  Mode used.

34                   **Table 3.7.2.3.2.33-1. Enhanced Access Modes**

| <b>ACCESS_MODE (binary)</b> | <b>Access Mode</b>      |
|-----------------------------|-------------------------|
| 000                         | Basic Access Mode       |
| 001                         | Reservation Access Mode |
| 010 – 011                   | Reserved                |

36            ACCESS\_MODE\_MIN-

- 1            \_DURATION    - The minimum message duration for the corresponding Access  
2            Mode.  
3            The base station shall set this field to the minimum message  
4            duration for the corresponding Access Mode, in units of 5 ms.  
5            See [3].
- 6    ACCESS\_MODE\_MAX-  
7            \_DURATION    - The maximum message duration for the corresponding Access  
8            Mode.  
9            The base station shall set this field to the maximum message  
10          duration for the corresponding Access Mode, in units of 5 ms.  
11          See [3].
- 12    RLGAIN\_COMMON-  
13            \_PILOT        - Gain adjustment of the Enhanced Access Channel or Reverse  
14            Common Control Channel relative to the Reverse Pilot  
15            Channel.  
16            The base station shall set this field to the correction factor to  
17            be used by mobile stations in setting the power of a code  
18            channel, expressed as a two's complement value in units of  
19            0.125 dB (see 2.1.2.3.3 of [2]).
- 20    IC\_THRESH        - Interference correction threshold.  
21            The threshold level at which the interference correction begins  
22            to be applied.  
23            The base station shall set this field to the negative of the  
24            interference correction threshold to be used by mobile stations  
25            to determine the interference correction, in units of 1 dB  
26            (see 2.1.2.3.1.2 of [2]).
- 27    IC\_MAX          - The maximum interference correction that can be applied.  
28            The base station shall set this field to the maximum  
29            interference correction that can be applied, in units of 1 dB  
30            (see 2.1.2.3.1.2 of [2]).
- 31    NUM\_MODE\_PARM-  
32            \_REC         - The number of mode-specific parameter records.  
33            The base station shall set this field to the number of mode-  
34            specific parameter records included in the message, minus  
35            one.
- 36            The base station shall include NUM\_MODE\_PARM\_REC + 1 occurrences of the following  
37            record:
- 38    EACH\_PARM\_REC-  
39            \_LEN        - Length of the mode-specific parameters record.  
40            The base station shall set this field to the total length, in  
41            octets, of the mode-specific parameters record, including the  
42            EACH\_PARM\_REC\_LEN and RESERVED fields.
- 43    APPLICABLE\_MODES    - Access modes to which the access parameters specified in this  
44            record apply.

The base station shall set each subfield of the APPLICABLE\_MODES field as follows: the base station shall set the subfield to '1' if the access parameters included in this record are applicable to the corresponding Access Mode in Table 3.7.2.3.2.33-2; otherwise, the base station shall set the subfield to '0'.

**Table 3.7.2.3.2.33-2. Applicable Modes**

| <b>Subfield</b> | <b>Length (bits)</b> | <b>Subfield Description</b> |
|-----------------|----------------------|-----------------------------|
| ACC_MODE_1      | 1                    | Basic Access Mode           |
| ACC_MODE_2      | 1                    | Reservation Access Mode     |
| RESERVED        | 6                    |                             |

- EACH\_NOM\_PWR - Nominal transmit power offset for the Enhanced Access Channels.
- EACH\_INIT\_PWR - Initial power offset for the Enhanced Access Channels.
- EACH\_PWR\_STEP - Power increment for the Enhanced Access Channels.
- EACH\_NUM\_STEP - Number of access probes.
- EACH\_PREAMBLE-  
\_ENABLED - Preamble enabled indicator for the Enhanced Access Channel. The base station shall set this field to '1' if EACH preamble related information is included in this message; otherwise, the base station shall set this field to '0'.
- EACH\_PREAMBLE-  
\_NUM\_FRAC - The number of fractional preambles on the Enhanced Access Channels.

If EACH\_PREAMBLE\_ENABLED is set to ‘1’, the base station shall set this field to the number of fractional preambles minus one on the Enhanced Access Channels; otherwise, the base station shall omit this field.

EACH\_PREAMBLE-

- \_FRAC\_DURATION - Fractional preamble duration on the Enhanced Access Channels.

If EACH\_PREAMBLE\_ENABLED is set to ‘1’, the base station shall set this field to the fractional preamble duration minus one on an Enhanced Access Channel, in units of 1.25 ms; otherwise, the base station shall omit this field.

EACH\_PREAMBLE-

\_OFF\_DURATION

- Fractional preamble gated-off duration on the Enhanced Access Channels.

If EACH\_PREAMBLE\_ENABLED is set to ‘1’, the base station shall set this field to the fractional preamble gated-off duration (in units of 1.25 ms) after the transmission of each fractional preamble on an Enhanced Access Channel; otherwise, the base station shall omit this field.

EACH\_PREAMBLE-

\_ADD\_DURATION

- Additional preamble duration on the Enhanced Access Channels.

If EACH\_PREAMBLE\_ENABLED is set to ‘1’, the base station shall set this field to the additional preamble duration on an Enhanced Access Channel, in units of 1.25 ms; otherwise, the base station shall omit this field.

EACH\_ACCESS

\_THRESH

Pilot  $E_e/I_o$  threshold for transmission on the Enhanced Access Channels.

The base station shall set this field to:

$$\lceil 20 \times \log_{10} \text{pilot\_threshold} \rceil$$

where *pilot\_threshold* is the pilot  $E_e/I_o$  threshold below which the mobile station is not to transmit a probe on an Enhanced Access Channel.

RESERVED

- Reserved bits.

The base station shall set this field to ‘000000’.

EACH\_PROBE\_BKOFF

- Enhanced Access Channel probe backoff range.

The base station shall set this field to one less than the maximum number of slots a mobile station is to delay due to random backoff between consecutive enhanced access probes.

|   |                   |                                                                                                                                                                                                                                                                                                                                                                                                     |
|---|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | EACH_BKOFF        | - Enhanced Access Channel probe sequence backoff range.<br>The base station shall set this field to one less than the maximum number of slots a mobile station is to delay due to random backoff between successive enhanced access probe sequences and before the first enhanced access probe sequence of a response access.                                                                       |
| 2 | EACH_SLOT         | - Slot duration for the Enhanced Access Channels.<br>The base station shall set this field to N where the slot duration of the Enhanced Access Channel is $(N+1) \times 1.25$ ms. The base station shall set this field to a value between 0 and 63.                                                                                                                                                |
| 3 | EACH_SLOT_OFFSET1 | - First slot offset for the Enhanced Access Channels.<br>The base station shall set this field so that the Enhanced Access Channel has a slot offset equal to $(EACH_ID \times EACH_SLOT_OFFSET2 + EACH_SLOT_OFFSET1) \bmod (EACH_SLOT+1)$ , where EACH_ID is the Enhanced Access Channel Index. The base station shall set this field to a value between 0 and 63, <u>in units of 1.25 ms</u> .    |
| 4 | EACH_SLOT_OFFSET2 | - Relative slot offset for the Enhanced Access Channels.<br>The base station shall set this field so that the Enhanced Access Channel has a slot offset equal to $(EACH_ID \times EACH_SLOT_OFFSET2 + EACH_SLOT_OFFSET1) \bmod (EACH_SLOT+1)$ , where EACH_ID is the Enhanced Access Channel Index. The base station shall set this field to a value between 0 and 63, <u>in units of 1.25 ms</u> . |
| 5 | RESERVED          | - Reserved bits.<br>The base station shall include as many bits as required to make the length of the mode-specific parameters record an integral number of octets. The base station shall set each of these bits to '0'.                                                                                                                                                                           |
| 6 | BA_PARMS_LEN      | - Length of Basic Access Mode parameter record.<br>The base station shall set this field to the total length, in octets, of Basic Access Mode parameters record included in the message, <u>excluding</u> the BA_PARMS_LEN <u>and but including the</u> RESERVED fields. <u>If there are no fields other than the BA PARMS LEN in this record, the base station shall set this field to '000'</u> . |
| 7 | NUM_EACH_BA       | - Number of Enhanced Access Channels used for the Basic Access Mode.<br><u>If BA PARMS LEN is equal to '000', the base station shall omit this field; otherwise, The base station shall include this field and set this field to the number of Enhanced Access Channels used for the Basic Access mode minus one.</u>                                                                               |
| 8 | EACH_BA_RATES-    |                                                                                                                                                                                                                                                                                                                                                                                                     |

1            \_SUPPORTED    -    Supported rate words for the Basic Access mode on the  
 2            Enhanced Access Channels.

3            If BA\_PARMS\_LEN is equal to '000', the base station shall  
 4            omit this field; otherwise, The base station shall include this  
 5            field and set each subfield of the EACH\_BA\_RATES\_SUPPORTED field as follows: the base  
 6            station shall set the subfield to '1' if the corresponding mode  
 7            in Table 3.7.2.3.2.33-3 is allowed; otherwise the base station  
 8            shall set the subfield to '0'.  
 9

10            **Table 3.7.2.3.2.33-3. EACH and RCCCH Data Rate and Frame Size**

| Subfield    | Length (bits) | Subfield Description        |
|-------------|---------------|-----------------------------|
| RATE_SIZE_1 | 1             | 9600 bps, 20 ms frame size  |
| RATE_SIZE_2 | 1             | 19200 bps, 20 ms frame size |
| RATE_SIZE_3 | 1             | 19200 bps, 10 ms frame size |
| RATE_SIZE_4 | 1             | 38400 bps, 20 ms frame size |
| RATE_SIZE_5 | 1             | 38400 bps, 10 ms frame size |
| RATE_SIZE_6 | 1             | 38400 bps, 5 ms frame size  |
| RESERVED    | 2             | Reserved                    |

12            RESERVED    -    Reserved bits.

13            If BA\_PARMS\_LEN is equal to '000', the base station shall  
 14            omit this field; otherwise, The base station shall include as  
 15            many bits as required to make the length of the Basic Access  
 16            Mode record (excluding the BA\_PARMS\_LEN field but  
 17            including the RESERVED field) an integral number of octets.  
 18            The base station shall set each of these bits to '0'.  
 19

20            RA\_PARMS\_LEN    -    Length of Reservation Access Mode parameters record.

21            The base station shall set this field to the total length, in  
 22            octets, of Reservation Access Mode parameters record  
 23            included in the message, including the RA\_PARMS\_LEN  
 24            andbut including the RESERVED fields.

25            NUM\_EACH\_RA    -    Number of Enhanced Access Channels used for the  
 26            Reservation Access Mode.

27            If RA\_PARMS\_LEN is equal to '00000', the base station shall  
 28            omit this field; otherwise, The base station shall include this  
 29            field and set this field to the number of Enhanced Access  
 30            Channels used for the Reservation Access mode minus one.  
 31

32            NUM\_CACH    -    Number of Common Assignment Channels.

1           **If RA\_PARMS\_LEN is equal to '00000', the base station shall  
2           omit this field; otherwise, the base station shall include this  
3           field and set this field to the number of Common Assignment  
4           Channels supported by the system minus one.**

5       CACH\_CODE\_RATE - Code Rate for the Common Assignment Channels.

6           **If RA\_PARMS\_LEN is equal to '00000', the base station shall  
7           omit this field; otherwise, the base station shall include this  
8           field and set it as follows:**

9           If the CACH is operating in Spreading Rate 1, the base station  
10          shall set this field to '0' if the CACH Code Rate is 1/4 (see  
11          3.1.3.1.2.1 of [2]). The base station shall set this field to '1' if  
12          the CACH Code Rate is 1/2 (see 3.1.3.1.2.1 of [2]).

13          If the CACH is operating in Spreading Rate 3, the base station  
14          shall set this field to '0'.

15          **If RA\_PARMS\_LEN is not equal to '00000', the base station shall include (NUM\_CACH + 1)  
16          occurrences of the following one field record:**

17       CACH\_CODE\_CHAN - Code channel index for the Common Assignment Channel.

18           The base station shall set this field to the code channel index  
19           (see [2]) in the range 1 to 256 inclusive that the mobile station  
20           is to use on the Common Assignment Channel.

22       NUM\_RCCCH - Number of Reverse Common Control Channels used for the  
23           Reservation Mode.

24           **If RA\_PARMS\_LEN is equal to '00000', the base station shall  
25           omit this field; otherwise, the base station shall include this  
26           field and set this field to the number of Reverse Common  
27           Control Channels used for the Reservation mode minus one.**

28       RCCCH\_RATES-

29        \_SUPPORTED - Supported rate words on the Reverse Common Control  
30           Channels.

31           **If RA\_PARMS\_LEN is equal to '00000', the base station shall  
32           omit this field; otherwise, the base station shall include this  
33           field and set each bit of the RCCCH\_RATES\_SUPPORTED field  
34           as follows: the base station shall set the bit to '1' if the  
35           corresponding mode in Table 3.7.2.3.2.3-3 is allowed;  
36           otherwise the base station shall set the bit to '0'.**

37       RCCCH\_PREAMBLE-

38        \_ENABLED - Preamble enabled indicator for the Reverse Common Control  
39           Channel.

40           **If RA\_PARMS\_LEN is equal to '00000', the base station shall  
41           omit this field; otherwise, the base station shall include this  
42           field and set this field as follows:**

43           **to '1' If RCCCH preambles related information is included in  
44           this message, the base station shall set this field to '1';  
45           otherwise, the base station shall set this field to '0'.**

|    |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|----|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | RCCCH_PREAMBLE-    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 2  | _NUM_FRAC          | - Number of fractional preambles on the Reverse Common Control Channels.                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 3  |                    | If RCCCH_PREAMBLE_ENABLED <u>is included and</u> is set to '1', the base station shall set this field to the number of fractional preambles minus one on the Reverse Common Control Channels; otherwise, the base station shall omit this field.                                                                                                                                                                                                                                                                                                   |
| 4  |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 5  | RCCCH_PREAMBLE-    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 6  | FRAC_DURATION      | - Fractional preamble duration for the Reverse Common Control Channels.                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 7  |                    | If RCCCH_PREAMBLE_ENABLED <u>is included and</u> is set to '1', the base station shall set this field to the fractional preamble duration minus one on a Reverse Common Control Channel, in units of 1.25 ms; otherwise, the base station shall omit this field.                                                                                                                                                                                                                                                                                   |
| 8  |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 9  | RCCCH_PREAMBLE_-   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 10 | OFF_DURATION       | - Fractional preamble gated-off duration on Reverse Common Control Channels.                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 11 |                    | If RCCCH_PREAMBLE_ENABLED <u>is included and</u> is set to '1', the base station shall set this field to the fractional preamble gated-off duration (in units of 1.25 ms) after the transmission of each fractional preamble on a Reverse Common Control Channel; otherwise, the base station shall omit this field.                                                                                                                                                                                                                               |
| 12 |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 13 | RCCCH_PREAMBLE_-   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 14 | ADD_DURATION       | - Additional preamble duration on the Reverse Common Control Channels.                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 15 |                    | If RCCCH_PREAMBLE_ENABLED <u>is included and</u> is set to '1', the base station shall set this field to the additional preamble duration on a Reverse Common Control Channel, in units of 1.25 ms; otherwise, the base station shall omit this field.                                                                                                                                                                                                                                                                                             |
| 16 |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 17 | RCCCH_SLOT         | - Slot interval for the Reverse Common Control Channels.<br><br><u>If RA_PARMS_LEN is equal to '00000', the base station shall omit this field; otherwise, the base station shall include this field and set this field to N where the slot duration on the Reverse Common Control Channel is <math>(N+1) \times 1.25</math> ms. The base station shall set this field to a value between 0 and 63.</u>                                                                                                                                            |
| 18 |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 19 | RCCCH_SLOT_OFFSET1 | - First slot offset for the Reverse Common Control Channels.<br><br><u>If RA_PARMS_LEN is equal to '00000', the base station shall omit this field; otherwise, the base station shall include this field and set this field so that Reverse Common Control Channel has a slot offset equal to <math>(RCCCH_ID \times RCCCH_SLOT_OFFSET2 + RCCCH_SLOT_OFFSET1) \bmod (RCCCH_SLOT+1)</math>, where RCCCH_ID is the Reverse Common Control Channel Index. The base station shall set this field to a value between 0 and 63, in units of 1.25 ms.</u> |
| 20 |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 21 |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 22 |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 23 |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 24 |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 25 |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 26 |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 27 |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 28 |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 29 |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 30 |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 31 |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 32 |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 33 |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 34 |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 35 |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 36 |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 37 |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 38 |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 39 |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 40 |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 41 |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 42 |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 43 |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 44 |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 45 |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

|    |                    |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----|--------------------|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | RCCCH_SLOT_OFFSET2 | - | Second slot offset for the Reverse Common Control Channels.                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 2  |                    |   | <u>If RA PARMs LEN is equal to '00000', the base station shall omit this field; otherwise, the base station shall include this field and set this field to</u> so that Reverse Common Control Channel has a slot offset equal to $(\text{RCCCH\_ID} \times \text{RCCCH\_SLOT\_OFFSET2} + \text{RCCCH\_SLOT\_OFFSET1}) \bmod (\text{RCCCH\_SLOT}+1)$ , where RCCCH_ID is the Reverse Common Control Channel Index. The base station shall set this field to a value between 0 and 63, <u>in units of 1.25 ms</u> . |
| 10 | RCCCH_NOM_PWR      | - | Nominal transmit power offset for the Reverse Common Control Channels.                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 11 |                    |   | <u>If RA PARMs LEN is equal to '00000', the base station shall omit this field; otherwise, the base station shall include this field and set this field to</u> the correction factor to be used by a mobile station in the open loop power estimate, expressed as a two's complement value in units of 1 dB (see [2]).                                                                                                                                                                                            |
| 17 | RCCCH_INIT_PWR     | - | Initial power offset for the Reverse Common Control Channels.                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 18 |                    |   | <u>If RA PARMs LEN is equal to '00000', the base station shall omit this field; otherwise, the base station shall include this field and set this field to</u> the correction factor to be used by a mobile station in the open loop power estimate for the initial transmission on a Reverse Common Control Channel, expressed as a two's complement value in units of 1 dB (see [2]).                                                                                                                           |
| 25 | RA_PC_DELAY        | - | Power control delay for the Reverse Common Control Channel.                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 26 |                    |   | <u>If RA PARMs LEN is equal to '00000', the base station shall omit this field; otherwise, the base station shall include this field and set this field to</u> the number of power control bits the mobile is to disregard after initiating transmission on a Reverse Common Control Channel.                                                                                                                                                                                                                     |
| 31 | EACAM_CACH_DELAY   | - | Maximum time after an Enhanced Access Channel header transmission for receiving a response on the Common Assignment Channel when Reverse Common Control Channel soft handoff has not been requested.                                                                                                                                                                                                                                                                                                              |
| 35 |                    |   | <u>If RA PARMs LEN is equal to '00000', the base station shall omit this field; otherwise, the base station shall include this field and set this field to</u> the number of complete Common Assignment Channel frames minus one, from the end of the <i>R-EACH Header</i> , for which a mobile station is to wait for the <i>Early Acknowledgement Channel Assignment Message</i> if the mobile station has not requested Reverse Common Control Channel soft handoff.                                           |
| 43 | RCCCH_HO-          |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 44 | _SUPPORTED         | - | Reverse Common Control Channel handoff supported indicator.                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 45 |                    |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

1           If RA\_PARMS\_LEN is equal to '00000', the base station shall  
 2           omit this field; otherwise, the base station shall include this  
 3           field and set it as follows:

4           The base station shall set this field to '1' if Reverse Common  
 5           Control Channel handoff is supported by the base station;  
 6           otherwise, the base station shall set this field to '0'.

7       RCCCH\_HO\_THRESHOLD

- Reverse Common Control Channel soft handoff threshold.  
 8           If RCCCH\_HO\_SUPPORTED is included and is set to '1', the  
 9           base station shall include this field; otherwise the base station  
 10          shall omit this field. set to '0', the base station shall omit this  
 11          field; otherwise, the base station shall set this field to:

12          If included, the base station shall set this field to:

$$\lfloor -20 \times \log_{10} \text{pilot\_threshold} \rfloor$$

14          where *pilot\_threshold* is the pilot  $E_c/I_o$  threshold used to  
 15          determine whether the mobile station requests Reverse  
 16          Common Control Channel in soft handoff.

17          This is a positive value in units of 0.5 dB.

18       EACAM\_PCCAM\_DELAY

- Maximum time after an Enhanced Access Channel header transmission for receiving a response on the Common Assignment Channel when Reverse Common Control Channel soft handoff has been requested.

22          If RCCCH\_HO\_SUPPORTED is included and is set to '1', the  
 23          base station shall include this field; otherwise the base station  
 24          shall omit this field. set to '0', the base station shall omit this  
 25          field; otherwise;

26          If included, the base station shall set this field to the number  
 27          of complete Common Assignment Channel frames minus one,  
 28          from the end of the *R-EACH Header*, for which a mobile  
 29          station is to wait for the *Early Acknowledgement Channel*  
 30          *Assignment Message* and *Power Control Channel Assignment*  
 31          *Message* if the mobile station has requested Reverse Common  
 32          Control Channel soft handoff (see [3]).

33       NUM\_CPCCH

- Number of Common Power Control Channels.  
 34           If RA\_PARMS\_LEN is equal to '00000', the base station shall  
 35           omit this field; otherwise, the base station shall include this  
 36           field and set this field to the number of Common Power  
 37           Channels supported minus one.

38       CPCCH\_RATE

- Power control rate for the Common Power Control Channels.  
 39           If RA\_PARMS\_LEN is equal to '00000', the base station shall  
 40           omit this field; otherwise, the base station shall include this  
 41           field and set this field to the value shown in Table  
 42           3.7.2.3.2.33-4 corresponding to the power control rate for the  
 43           Common Power Control Channels.

**Table 3.7.2.3.2.33-4. CPCCH Power Control Rate**

| CPCCH_RATE (Binary) | Power Control Rate |
|---------------------|--------------------|
| 00                  | 200 bps            |
| 01                  | 400 bps            |
| 10                  | 800 bps            |
| 11                  | Reserved           |

If RA\_PARMS\_LEN is not equal to '00000', the base station shall include (NUM\_CPCCH + 1) occurrences of the following one field record:

CPCCH\_CODE\_CHAN - Code channel index for the Common Power Control Channel. The base station shall set this field to the code channel index (see [2]) in the range 1 to 128 inclusive that the mobile station is to use on the Common Power Control Channel.

NUM\_PCSCH\_RA - Number of Power Control Subchannels used for the Reservation Access Mode.

If RA\_PARMS\_LEN is equal to '00000', the base station shall omit this field; otherwise, the base station shall include this field and set this field to the number of Power Control Subchannels used for the Reservation Access Mode minus one.

RESERVED - Reserved bits.

If RA\_PARMS\_LEN is equal to '00000', the base station shall omit this field; otherwise, the base station shall include as many bits as required to make the length of the Reservation Access Mode record (excluding the RA\_PARMS\_LEN but including the RESERVED field) an integral number of octets. The base station shall set each of these bits to '0'.

ACCT\_INCL - Access Control based on Call Type (ACCT) information included indicator.

If the base station enables ACCT for at least one service option, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.

If the base station sets this field to '1', then the base station shall also set at least one of ACCT\_SO\_INCL or ACCT\_SO\_GRP\_INCL to '1'.

ACCT\_INCL\_EMG - Access Control based on Call Type (ACCT) includes emergency calls indicator.

If ACCT\_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

1                   The base station shall set this field to '0' if the mobile station  
 2                   is not to apply ACCT to a call that is recognized by the mobile  
 3                   station to be an emergency call; otherwise, the base station  
 4                   shall set this field to '1'.

5                   **ACCT AOC**

6                   BITMAP INCL - Access Control based on Call Type (ACCT) access overload  
 7                   class bitmap included indicator.

8                   If ACCT INCL is set to '0', the base station shall omit this  
 9                   field; otherwise, the base station shall include this field and  
 10                  set it as follows:

11                  The base station shall set this field to '0' if all mobile stations  
 12                  are to apply ACCT regardless of their access overload classes;  
 13                  otherwise, the base station shall set this field to '1' to indicate  
 14                  that the mobile station is to apply ACCT according to its  
 15                  access overload class.

16                  ACCT SO INCL - Access Control based on Call Type (ACCT) service option  
 17                  included indicator.

18                  If ACCT INCL is set to '0', the base station shall omit this  
 19                  field; otherwise, the base station shall include this field and  
 20                  set it as follows:

21                  The base station shall set this field to '1' if at least one  
 22                  occurrence of the ACCT SO field is included in this message;  
 23                  otherwise, the base station shall set this field to '0'.

24                  NUM ACCT SO - Number of service options for Access Control based on Call  
 25                  Type (ACCT).

26                  If ACCT SO INCL is not included, or is included and set to '0',  
 27                  then the base station shall omit this field; otherwise, the base  
 28                  station shall include this field and set it to one less than the  
 29                  number of occurrences of the ACCT SO field included in this  
 30                  message.

31                  If ACCT SO INCL is included and set to '1', then the base station shall include  
 32                  NUM ACCT SO + 1 occurrences of the following variable-field record:

33                  ACCT AOC BITMAP1 - Access Control based on Call Type (ACCT) access overload  
 34                  class bitmap.

35                  If ACCT AOC BITMAP1 INCL is set to '0', then the base station  
 36                  shall omit this field; otherwise, the base station shall include  
 37                  this field and set it as follows:

38                  This field consists of the subfields defined in Table  
 39                  3.7.2.3.2.2-1.

40                  The base station shall set a subfield to '1' to indicate that  
 41                  mobile stations having the corresponding access overload  
 42                  class are not permitted to perform access attempts using the  
 43                  associated service option ACCT SO; otherwise, the base  
 44                  station shall set the subfield to '0'.

|    |                         |                                                                                                                                                                                                                                                                                                                                                                                 |
|----|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | <u>ACCT SO</u>          | - Access Control based on Call Type (ACCT) service option number.                                                                                                                                                                                                                                                                                                               |
| 2  |                         | The base station shall set this field to the value of the service option number (as specified in [30]) that has ACCT enabled.                                                                                                                                                                                                                                                   |
| 3  | <u>ACCT SO GRP INCL</u> | - Access Control based on Call Type (ACCT) service option group included indicator.                                                                                                                                                                                                                                                                                             |
| 4  |                         | If ACCT INCL is set to '0', the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:                                                                                                                                                                                                                                 |
| 5  |                         | The base station shall set this field to '1' if at least one occurrence of the ACCT SO GRP field is included in this message; otherwise, the base station shall set this field to '0'.                                                                                                                                                                                          |
| 6  | <u>NUM ACCT SO GRP</u>  | - Number of service option groups for Access Control based on Call Type (ACCT).                                                                                                                                                                                                                                                                                                 |
| 7  |                         | If ACCT SO GRP INCL is not included, or is included and set to '0', then the base station shall omit this field; otherwise, the base station shall include this field and set it to one less than the number of occurrences of the ACCT SO GRP field included in this message.                                                                                                  |
| 8  |                         | If ACCT SO GRP INCL is included and set to '1', then the base station shall include NUM ACCT SO GRP + 1 occurrences of the following variable-field record:                                                                                                                                                                                                                     |
| 9  | <u>ACCT AOC_BITMAP2</u> | - Access Control based on Call Type (ACCT) access overload class bitmap.                                                                                                                                                                                                                                                                                                        |
| 10 |                         | If ACCT AOC_BITMAP INCL is set to '0', then the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:                                                                                                                                                                                                                 |
| 11 |                         | This field consists of the subfields defined in Table 3.7.2.3.2.2-1. The base station shall set a subfield to '1' to indicate that mobile stations having the corresponding access overload class are not permitted to perform access attempts using a service option specified by the associated ACCT SO GRP field; otherwise, the base station shall set the subfield to '0'. |
| 12 | <u>ACCT SO GRP</u>      | - Access Control based on Call Type (ACCT) service option group number.                                                                                                                                                                                                                                                                                                         |
| 13 |                         | The base station shall set this field to the value of the service option group number (as specified in [30]) whose members all have ACCT enabled.                                                                                                                                                                                                                               |

## 1    3.7.2.3.2.34 Universal Neighbor List Message

2    MSG\_TAG: UNLM

| <b>Field</b>        | <b>Length (bits)</b> |
|---------------------|----------------------|
| PILOT_PN            | 9                    |
| CONFIG_MSG_SEQ      | 6                    |
| NUM_RADIO_INTERFACE | 4                    |

NUM\_RADIO\_INTERFACE occurrences of the following record:

|                                      |                            |
|--------------------------------------|----------------------------|
| RADIO_INTERFACE_TYPE                 | 4                          |
| RADIO_INTERFACE_LEN                  | 8                          |
| Radio Interface Type-specific fields | 8<br>× RADIO_INTERFACE_LEN |

3

4    PILOT\_PN    -    Pilot PN sequence offset index.  
 5                 The base station shall set this field to the pilot PN sequence  
 6                 offset for this base station, in units of 64 PN chips.

7    CONFIG\_MSG\_SEQ    -    Configuration message sequence number.  
 8                 The base station shall set this field to CONFIG\_SEQ (see  
 9                 3.6.2.2).

10      NUM\_RADIO-  
 11        \_INTERFACE    -    Number of interface types.  
 12                 The base station shall set this field to the number of radio  
 13                 interface types for which neighbors are included in this  
 14                 message.

15      The base station shall include NUM\_RADIO\_INTERFACE occurrences of the following  
 16                 record, one occurrence for each radio interface for which neighbors are included in this  
 17                 message.

18      RADIO-  
 19        \_INTERFACE\_TYPE    -    The radio interface type.  
 20                 The base station shall set this field to the radio interface type  
 21                 of this record as specified in Table 3.7.2.3.2.34-1.

**Table 3.7.2.3.2.34-1. Radio Interface Type**

| <b>RADIO_INTERFACE_TYPE<br/>(binary)</b> | <b>Descriptions</b> |
|------------------------------------------|---------------------|
| 0000                                     | MC system           |
| 0001                                     | Analog system       |
| 0010-1111                                | Reserved            |

- 2
- 3                   RADIO-
- 4     \_INTERFACE\_LEN    -   The length of the Radio Interface Type-specific fields.
- 5                   The base station shall set this field to the number of octets in
- 6                   the Radio Interface Type-specific fields of this record.
- 7     If RADIO\_INTERFACE\_TYPE is equal to '0000', the base station shall include the following
- 8     fields:

| <b>Field</b>          | <b>Length (bits)</b> |
|-----------------------|----------------------|
| PILOT_INC             | 4                    |
| NGHBR_SRCH_MODE       | 2                    |
| SRCH_WIN_N            | 0 or 4               |
| SRCH_OFFSET_INCL      | 1                    |
| FREQ_FIELDS_INCL      | 1                    |
| USE_TIMING            | 1                    |
| GLOBAL_TIMING_INCL    | 0 or 1               |
| GLOBAL_TX_DURATION    | 0 or 4               |
| GLOBAL_TX_PERIOD      | 0 or 7               |
| NGHBR_SET_ENTRY_INFO  | 1                    |
| NGHBR_SET_ACCESS_INFO | 1                    |
| NUM_NGHBR             | 6                    |

NUM\_NGHBR occurrences of the following subrecord:

|                      |                                    |
|----------------------|------------------------------------|
| NGHBR_CONFIG         | 3                                  |
| NGHBR_PN             | 9                                  |
| BCCH_SUPPORT         | 0 or 1                             |
| ADD_PILOT_REC_INCL   | 1                                  |
| NGHBR_PILOT_REC_TYPE | 0 or 3                             |
| RECORD_LEN           | 0 or 3                             |
| Type-specific fields | 0 or $8 \times \text{RECORD\_LEN}$ |

(continues on next page)

| <b>Field</b>      | <b>Length (bits)</b> |
|-------------------|----------------------|
| SEARCH_PRIORITY   | 0 or 2               |
| SRCH_WIN_NGHBR    | 0 or 4               |
| SRCH_OFFSET_NGHBR | 0 or 3               |
| FREQ_INCL         | 0 or 1               |
| NGHBR_BAND        | 0 or 5               |
| NGHBR_FREQ        | 0 or 11              |
| TIMING_INCL       | 0 or 1               |
| NGHBR_TX_OFFSET   | 0 or 7               |
| NGHBR_TX_DURATION | 0 or 4               |
| NGHBR_TX_PERIOD   | 0 or 7               |
| ACCESS_ENTRY_HO   | 0 or 1               |
| ACCESS_HO_ALLOWED | 0 or 1               |

|          |                   |
|----------|-------------------|
| RESERVED | 0 – 7 (as needed) |
|----------|-------------------|

- 1
- 2      PILOT\_INC    -    Pilot PN sequence offset index increment.
- 3                  A mobile station searches for Remaining-Set pilots at pilot PN
- 4                  sequence index values that are multiples of this value.
- 5                  The base station shall set this field to the pilot PN sequence
- 6                  increment, in units of 64 PN chips, that mobile stations are to
- 7                  use for searching the Remaining Set. The base station should
- 8                  set this field to the largest increment such that the pilot PN
- 9                  sequence offsets of all its neighbor base stations are integer
- 10                 multiples of that increment.
- 11                 The base station shall set this field to a value in the range 1 to
- 12                 15 inclusive.
- 13      NGHBR\_SRCH\_MODE    -    Search mode.
- 14                 The base station shall set this field to the value shown in
- 15                 Table 3.7.2.3.2.34-2 corresponding to the search mode.
- 16

**Table 3.7.2.3.2.34-2. Search Mode Field**

| <b>Value<br/>(binary)</b> | <b>Description</b>                     |
|---------------------------|----------------------------------------|
| 00                        | No search priorities or search windows |
| 01                        | Search priorities                      |
| 10                        | Search windows                         |
| 11                        | Search windows and search priorities   |

- 1
- 2
- 3      SRCH\_WIN\_N    -    Search window size for the Neighbor Set.
- 4                 If NGHBR\_SRCH\_MODE = '00' or NGHBR\_SRCH\_MODE = '01',  
5                 the base station shall include the field SRCH\_WIN\_N and shall  
6                 set this field as described below; otherwise, the base station  
7                 shall omit this field.
- 8                 The base station shall set this field to the value shown in  
9                 Table 2.6.6.2.1-1 corresponding to the search window size to  
10          be used by mobile stations for the Neighbor Set.
- 11     SRCH\_OFFSET\_INCL    -    Neighbor pilot channel search window offset included.  
12                 If NGHBR\_SRCH\_MODE = '10' or '11' and if the  
13                 SRCH\_OFFSET\_NGHBR field is included in the following  
14                 records, the base station shall set this bit to '1'; otherwise, the  
15                 base station shall set this bit to '0'.
- 16     FREQ\_FIELDS\_INCL    -    Frequency fields included.  
17                 If frequency fields are included in this message, the base  
18                 station shall set this field to '1'; otherwise, the base station  
19                 shall set this field to '0'.
- 20     USE\_TIMING    -    Use timing indicator.  
21                 If base station timing information is included for neighbor  
22                 base stations, the base station shall set this field to '1';  
23                 otherwise, the base station shall set this field to '0'.
- 24     GLOBAL\_TIMING-  
25                 \_INCL    -    Global timing included.  
26                 If USE\_TIMING is set to '1', the base station shall include the  
27                 field GLOBAL\_TIMING\_INCL and shall set this field as  
28                 described below; otherwise, the base station shall omit this  
29                 field.
- 30                 If base station timing information is included globally for all  
31                 neighbor base stations with TIMING\_INCL equal to '1', the  
32                 base station shall set this field to '1'; otherwise, the base  
33                 station shall set this field to '0'.
- 34     GLOBAL\_TX-  
35                 \_DURATION    -    Global neighbor transmit time duration.

1           If GLOBAL\_TIMING\_INCL is included and is set to ‘1’, the base  
 2           station shall include the field GLOBAL\_TX\_DURATION and  
 3           shall set this field as described below; otherwise, the base  
 4           station shall omit this field.

5           The base station shall set this field to the duration of the base  
 6           station transmit window, during each period, in units of 80  
 7           ms. The base station should set this field to a value of 3 or  
 8           greater.

9           **GLOBAL\_TX-**

10          **\_PERIOD**

- Global neighbor transmit time period.

11         If GLOBAL\_TIMING\_INCL is included and is set to ‘1’, the base  
 12         station shall include the field GLOBAL\_TX\_PERIOD and shall  
 13         set this field as described below; otherwise, the base station  
 14         shall omit this field.

15         The base station shall set this field to duration of the period,  
 16         in units of 80 ms.

17          **NGHBR\_SET-**

18          **\_ENTRY\_INFO**

- Neighbor Set access entry handoff information included indicator.

20         If the base station is including information on the Neighbor  
 21         Set access entry handoff, the base station shall set this field  
 22         to ‘1’; otherwise, the base station shall set this field to ‘0’.

23          **NGHBR\_SET-**

24          **\_ACCESS\_INFO**

- Neighbor Set access handoff included indicator.

25         If the base station is including information on the Neighbor  
 26         Set access handoff or access probe handoff, the base station  
 27         shall set this field to ‘1’, otherwise, the base station shall set  
 28         this field to ‘0’.

29          **NUM\_NGHBR**

- Number of neighbor pilot PN sequences.

30         The base station shall set this field to the number of  
 31         neighbors included in the message.

33         The base station shall include one occurrence of the following subrecord for each pilot that  
 34         a mobile station is to place in its Neighbor Set.

35

- 1           NGHBR\_CONFIG    -    Neighbor configuration.  
 2  
 3  
 4           The base station shall set this field to the value shown in  
              Table 3.7.2.3.2.34-3 corresponding to the configuration of this  
              neighbor.

5           **Table 3.7.2.3.2.34-3. Neighbor Configuration Field**

| <b>Value<br/>(binary)</b> | <b>Neighbor Configuration</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 000                       | <p>The neighbor base station has the same number of frequencies having Primary Broadcast Control Channel/Forward Common Control Channels as the current base station.</p> <p>The neighbor base station has a CDMA frequency assignment corresponding to this CDMA frequency assignment with the same number of Forward Common Control Channels, and the neighbor frequency is given as follows:</p> <ul style="list-style-type: none"> <li>• If FREQ_INCL equals '0' for this record, this corresponding CDMA frequency assignment is the current CDMA frequency assignment.</li> <li>• If FREQ_INCL equals '1' for this record, this corresponding CDMA frequency assignment is given by NGHBR_BAND and NGHBR_FREQ.</li> </ul> <p>The position of the neighbor CDMA frequency assignment in the <i>Extended CDMA Channel List Message</i> transmitted by the neighbor base station is the same as the position of this current CDMA frequency assignment in the <i>Extended CDMA Channel List Message</i> transmitted by the current base station.</p> <p>The rate, code rate, and code channel of the Primary Broadcast Control Channel on this corresponding CDMA frequency are the same values as the current ones.</p> <p>The rate, code rate, and code channel of the corresponding Forward Common Control Channel on this corresponding CDMA frequency are the same values as the current ones.</p> |

|     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 001 | <p>The neighbor base station does not have any frequencies with Primary Broadcast Control Channel/Forward Common Control Channel.</p> <p>The neighbor base station has the same number of frequencies having Paging Channels as the current base station has frequencies having Primary Broadcast Control Channel/Forward Common Control Channel.</p> <p>The neighbor base station has a CDMA frequency assignment corresponding to this CDMA frequency assignment but possibly with a different number of Paging Channels, and the neighbor frequency is given as follows:</p> <ul style="list-style-type: none"> <li>• If FREQ_INCL equals ‘0’ for this record, this corresponding CDMA frequency assignment is the current CDMA frequency assignment.</li> <li>• If FREQ_INCL equals ‘1’ for this record, this corresponding CDMA frequency assignment is given by NGHBR_BAND and NGHBR_FREQ.</li> </ul> <p>The position of the neighbor CDMA frequency assignment in the <i>Extended CDMA Channel List Message</i> transmitted by the neighbor base station is the same as the position of this current CDMA frequency assignment in the <i>Extended CDMA Channel List Message</i> transmitted by the current base station.</p> <p>This corresponding neighbor CDMA frequency assignment does have a Primary Paging Channel, at 9600 bps.</p> |
| 010 | <p>The neighbor base station may have a different number of frequencies having Primary Broadcast Control Channel/Forward Common Control Channel as the current base station.</p> <p>The neighbor base station has a Primary Broadcast Control Channel on the following frequency:</p> <ul style="list-style-type: none"> <li>• If FREQ_INCL equals ‘0’ for this record, the neighbor base station has a Primary Broadcast Control Channel on the first CDMA Channel listed in the <i>Extended CDMA Channel List Message</i> transmitted by the current base station.</li> <li>• If FREQ_INCL equals ‘1’ for this record, the neighbor base station has a Primary Broadcast Control Channel on the CDMA frequency assignment given by NGHBR_BAND and NGHBR_FREQ.</li> </ul> <p>The rate, code rate, and code channel of the Primary Broadcast Control Channel on this corresponding CDMA frequency are the same values as the current ones.</p>                                                                                                                                                                                                                                                                                                                                                                                                    |

|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 011     | <p>The neighbor base station configuration is unknown but the neighbor base station has a Pilot Channel on the following frequency:</p> <ul style="list-style-type: none"> <li>• If FREQ_INCL equals ‘0’ for this record, the neighbor CDMA frequency assignment is the same as the current CDMA frequency assignment and has a Pilot Channel.</li> <li>• If FREQ_INCL equals ‘1’ for this record, the CDMA frequency assignment given by NGHBR_BAND and NGHBR_FREQ has a Pilot Channel.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 100     | <p>The neighbor base station has the same number of frequencies having Primary Broadcast Control Channel/Forward Common Control Channel as the current base station.</p> <p>The neighbor base station has a CDMA frequency assignment corresponding to this CDMA frequency assignment with a Primary Broadcast Control Channel, and the neighbor CDMA frequency is given as follows:</p> <ul style="list-style-type: none"> <li>• If FREQ_INCL equals ‘0’ for this record, this corresponding CDMA frequency assignment is the current CDMA frequency assignment.</li> <li>• If FREQ_INCL equals ‘1’ for this record, this corresponding CDMA frequency assignment is given by NGHBR_BAND and NGHBR_FREQ.</li> </ul> <p>The position of the neighbor CDMA frequency assignment in the <i>Extended CDMA Channel List Message</i> transmitted by the neighbor base station is the same as the position of this current CDMA frequency assignment in the <i>Extended CDMA Channel List Message</i> transmitted by the current base station.</p> <p>The rate, code rate, and code channel of the Primary Broadcast Control Channel on this corresponding CDMA frequency are the same values as the current ones.</p> |
| 101-111 | Reserved.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

- 1  
2           NGHBR\_PN   - Neighbor pilot PN sequence offset index.  
3                         The base station shall set this field to the pilot PN sequence  
4                         offset for this neighbor, in units of 64 PN chips.  
5           BCCH\_SUPPORT   - BCCH support indicator.  
6                         If the NGHBR\_CONFIG field is not set to ‘011’, the base  
7                         station shall omit this field; otherwise, the base station shall  
8                         include this field and set it as follows:

- 1                   If this neighbor base station supports Broadcast Control  
 2                   Channel, the base station shall set this field to '1'; otherwise,  
 3                   the base station shall set this field to '0'.
- 4 ADD\_PILOT\_REC\_INCL - Additional pilot information included indicator.  
 5                   The base station shall set this field to '1' if additional pilot  
 6                   information listed in the NGHBR\_PILOT\_REC\_TYPE and  
 7                   RECORD\_LEN fields are included. The base station shall set  
 8                   this field to '0' if the corresponding pilot is the common pilot  
 9                   and there is no additional pilot information included.
- 10 NGHBR\_PILOT\_REC\_TYPE - Neighbor Pilot record type  
 11                  If ADD\_PILOT\_REC\_INCL is set to '1', the base station shall  
 12                  set this field to the NGHBR\_PILOT\_REC\_TYPE value shown in  
 13                  Table 3.7.2.3.2.34-4 corresponding to the type of Pilot Record  
 14                  specified by this record.
- 15

**Table 3.7.2.3.2.34-4. Neighbor Pilot Record Types**

| Description                                        | NGHBR_PILOT_REC_TYPE<br>(binary) |
|----------------------------------------------------|----------------------------------|
| 1X Common Pilot with Transmit Diversity            | 000                              |
| 1X Auxiliary Pilot                                 | 001                              |
| 1X Auxiliary Pilot with Transmit Diversity         | 010                              |
| 3X Common Pilot                                    | 011                              |
| 3X Auxiliary Pilot                                 | 100                              |
| All other NGHBR_PILOT_REC_TYPE values are reserved |                                  |

- 17
- 18                  If ADD\_PILOT\_REC\_INCL is set to '0', the base station shall  
 19                  omit this field.
- 20 RECORD\_LEN - Pilot record length.  
 21                  If ADD\_PILOT\_REC\_INCL is set to '1', the base station shall  
 22                  set this field to the number of octets in the type-specific fields  
 23                  of this pilot record.
- 24                  If ADD\_PILOT\_REC\_INCL is set to '0', the base station shall  
 25                  omit this field.
- 26 Type-specific fields - Pilot record type-specific fields.  
 27                  If ADD\_PILOT\_REC\_INCL is set to '1', the base station shall  
 28                  include type-specific fields based on the  
 29                  NGHBR\_PILOT\_REC\_TYPE of this pilot record.
- 30                  If ADD\_PILOT\_REC\_INCL is set to '0', the base station shall  
 31                  omit this field.

If NGHBR\_PILOT\_REC\_TYPE is equal to '000', the base station shall include the following fields:

| <b>Field</b>   | <b>Length (bits)</b> |
|----------------|----------------------|
| TD_POWER_LEVEL | 2                    |
| TD_MODE        | 2                    |
| RESERVED       | 4                    |

TD\_POWER\_LEVEL - TD Transmit Power Level.

The base station shall set this field to the TD transmit power level relative to that of the Forward Pilot Channel as specified in Table 3.7.2.3.2.26-4.

TD\_MODE - Transmit Diversity mode.

The base station shall set this field to the Transmit Diversity mode, as specified in Table 3.7.2.3.2.26-3.

RESERVED - Reserved bits.

The base station shall set this field to '0000'.

If NGHBR\_PILOT\_REC\_TYPE is equal to '001', the base station shall include the following fields:

| <b>Field</b>    | <b>Length (bits)</b> |
|-----------------|----------------------|
| QOF             | 2                    |
| WALSH_LENGTH    | 3                    |
| AUX_PILOT_WALSH | WALSH_LENGTH+6       |
| RESERVED        | 0 to 7 (as needed)   |

QOF - Quasi-orthogonal function index.

The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]).

WALSH\_LENGTH - Length of the Walsh Code.

The base station shall set this field to the WALSH\_LENGTH value shown in Table 3.7.2.3.2.22-6 corresponding to the length of the Walsh code for the pilot that is used in as the Auxiliary pilot.

AUX\_PILOT\_WALSH - Walsh Code for the Auxiliary Pilot.

The base station shall set this field to the Walsh code corresponding to the Auxiliary pilot.

RESERVED - Reserved bits.

1           The base station shall set all the bits of this field to '0' to make  
 2           the entire record octet-aligned.

3       If NGHBR\_PILOT\_REC\_TYPE is equal to '010', the base station shall include the following  
 4       fields:

| <b>Field</b>       | <b>Length (bits)</b> |
|--------------------|----------------------|
| QOF                | 2                    |
| WALSH_LENGTH       | 3                    |
| AUX_WALSH          | WALSH_LENGTH+6       |
| AUX_TD_POWER_LEVEL | 2                    |
| TD_MODE            | 2                    |
| RESERVED           | 0 to 7 (as needed)   |

6  
 7           QOF     - Quasi-orthogonal function index for the Auxiliary Transmit  
 8                   Diversity Pilot.

9           The base station shall set this field to the index of the Quasi-  
 10                   orthogonal function (see Table 3.1.3.1.12-2 of [2]).

11          WALSH\_LENGTH - Length of the Walsh Code.

12           The base station shall set this field to the WALSH\_LENGTH  
 13                   value shown in 3.7.2.3.2.22-6 corresponding to the length of  
 14                   the Walsh code for the pilots that are used as Auxiliary pilot  
 15                   in the transmit diversity mode.

16          AUX\_WALSH - Walsh Code for the Auxiliary Pilot.

17           The base station shall set this field to the Walsh code  
 18                   corresponding to the Auxiliary Pilot.

19           AUX\_TD-  
 20           \_POWER\_LEVEL - Auxiliary Transmit Diversity Pilot Power Level.

21           The base station shall set this field to the Auxiliary Transmit  
 22                   Diversity Pilot transmit power level relative to that of the  
 23                   Auxiliary Pilot as specified in Table 3.7.2.3.2.22-7.

24          TD\_MODE - Transmit Diversity mode.

25           The base station shall set this field to the Transmit Diversity  
 26                   mode, as specified in Table 3.7.2.3.2.26-3.

27          RESERVED - Reserved bits.

28           The base station shall set all the bits of this field to '0' to make  
 29                   the entire record octet-aligned.

30       If NGHBR\_PILOT\_REC\_TYPE is equal to '011', the base station shall include the following  
 31       fields:

| <b>Field</b>      | <b>Length (bits)</b> |
|-------------------|----------------------|
| SR3_PRIMARY_PILOT | 2                    |
| SR3_PILOT_POWER1  | 3                    |
| SR3_PILOT_POWER2  | 3                    |

- 1
- 2 SR3\_PRIMARY\_PILOT – Primary SR3 pilot.  
3 The base station shall set this field to the value shown in  
4 Table 3.7.2.3.2.26-5 corresponding to the position of the  
5 primary SR3 pilot.
- 6 SR3\_PILOT\_POWER1 – The primary SR3 pilot power level relative to that of the pilot  
7 on the lower frequency of the two remaining SR3 frequencies.  
8 The base station shall set this field to the value shown in  
9 Table 3.7.2.3.2.26-6 corresponding to the power level of the  
10 primary pilot with respect to the pilot on the lower frequency  
11 of the two remaining SR3 frequencies.
- 12 SR3\_PILOT\_POWER2 – The primary SR3 pilot power level relative to that of the pilot  
13 on the higher frequency of the two remaining SR3 frequencies.  
14 The base station shall set this field to the value shown in  
15 Table 3.7.2.3.2.26-6 corresponding to the power level of the  
16 primary pilot with respect to the pilot on the higher frequency  
17 of the two remaining SR3 frequencies.

18 ~~RESERVED~~ ~~Reserved bits.~~

19 ~~The base station shall set this field to '0000000'.~~

- 20
- 21 If NGHBR\_PILOT\_REC\_TYPE is equal to '100', the base station shall include the following  
22 fields:

| <b>Field</b>      | <b>Length (bits)</b>    |
|-------------------|-------------------------|
| SR3_PRIMARY_PILOT | 2                       |
| SR3_PILOT_POWER1  | 3                       |
| SR3_PILOT_POWER2  | 3                       |
| QOF               | 2                       |
| WALSH_LENGTH      | 3                       |
| AUX_PILOT_WALSH   | WALSH_LENGTH+6          |
| ADD_INFO_INCL1    | 1                       |
| QOF1              | 0 or 2                  |
| WALSH_LENGTH1     | 0 or 3                  |
| AUX_PILOT_WALSH1  | 0 or<br>WALSH_LENGTH1+6 |
| ADD_INFO_INCL2    | 1                       |
| QOF2              | 0 or 2                  |
| WALSH_LENGTH2     | 0 or 3                  |
| AUX_PILOT_WALSH2  | 0 or<br>WALSH_LENGTH2+6 |
| RESERVED          | 0 – 7 (as needed)       |

- 1      SR3\_PRIMARY\_PILOT    - Primary SR3 pilot.  
 2      The base station shall set this field to the value shown in  
 3      Table 3.7.2.3.2.26-5 corresponding to the position of the  
 4      primary SR3 pilot.
- 5      SR3\_PILOT\_POWER1    - The primary SR3 pilot power level relative to that of the pilot  
 6      on the lower frequency of the two remaining SR3 frequencies.  
 7      The base station shall set this field to the value shown in  
 8      Table 3.7.2.3.2.26-6 corresponding to the power level of the  
 9      primary pilot with respect to the pilot on the lower frequency  
 10     of the two remaining SR3 frequencies.
- 11     SR3\_PILOT\_POWER2    - The primary SR3 pilot power level relative to that of the pilot  
 12     on the higher frequency of the two remaining SR3 frequencies.  
 13     The base station shall set this field to the value shown in  
 14     Table 3.7.2.3.2.26-6 corresponding to the power level of the  
 15     primary pilot with respect to the pilot on the higher frequency  
 16     of the two remaining SR3 frequencies.
- 17     QOF    - Quasi-orthogonal function index.  
 18     The base station shall set this field to the index of the Quasi-  
 19     orthogonal function (see Table 3.1.3.1.12-2 of [2] on the  
 20     frequency of the primary pilot).
- 21     WALSH\_LENGTH    - Length of the Walsh Code.

The base station shall set this field to the WALS\_LENGTH value shown in Table 3.7.2.3.2.22-6 corresponding to the length of the Walsh code for the pilot that is used as the Auxiliary pilot on the frequency of the primary pilot.

- AUX\_PILOT\_WALSH - Walsh Code for the Auxiliary Pilot.  
The base station shall set this field to the Walsh code corresponding to the Auxiliary pilot on the frequency of the auxiliary pilot.

The base station shall set this

corresponding to the Auxiliary pilot on the frequency of the primary pilot.

- ADD\_INFO\_INCL1** - Additional information included for the pilot on the lower frequency of the two remaining SR3 frequencies.

If the additional information for the pilot on the lower frequencies of the two remaining SR3 frequencies is the same as pilot on the primary frequency, the base station shall set this field to '0'; otherwise, the base station shall set this field to '1'.

- QOF1** - Quasi-orthogonal function index for the pilot on the lower frequency of the two remaining SR3 frequencies.

If ADD\_INFO\_INCL1 is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2] on the lower frequency of the two remaining SR3 frequencies.

- WALSH\_LENGTH1** - Length of the Walsh Code for the pilot on the lower frequency of the two remaining SR3 frequencies.

If ADD\_INFO\_INCL1 is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the WALS\_LENGTH value shown in Table 3.7.2.3.2.22-6 corresponding to the length of the Walsh code for the pilot that is used as the Auxiliary pilot on the lower frequency of the two remaining SR3 frequencies.

- AUX\_PILOT\_WALSH1** - Walsh Code for the Auxiliary Pilot on the lower frequency of the two remaining SR3 frequencies.

If ADD\_INFO\_INCL1 is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the Walsh code corresponding to the Auxiliary pilot on the lower frequency of the two remaining SR3 frequencies.

- ADD\_INFO\_INCL2** - Additional information included for the pilot on the higher frequency of the two remaining SR3 frequencies.

1                   If the additional information for the pilot on the higher  
 2 frequencies of the two remaining SR3 frequencies is the same  
 3 as pilot on the primary frequency, the base station shall set  
 4 this field to '0'; otherwise, the base station shall set this field  
 5 to '1'.

6                   **QOF2** - Quasi-orthogonal function index for the pilot on the higher  
 7 frequency of the two remaining SR3 frequencies.

8                   If ADD\_INFO\_INCL2 is set to '0', the base station shall omit  
 9 this field; otherwise, the base station shall set this field as  
 10 follows:

11                  The base station shall set this field to the index of the Quasi-  
 12 orthogonal function (see Table 3.1.3.1.12-2 of [2]) on the  
 13 higher frequency of the two remaining SR3 frequencies.

14                  **WALSH\_LENGTH2** - Length of the Walsh Code for the pilot on the higher frequency  
 15 of the two remaining SR3 frequencies.

16                  If ADD\_INFO\_INCL2 is set to '0', the base station shall omit  
 17 this field; otherwise, the base station shall set this field as  
 18 follows:

19                  The base station shall set this field to the WALSH\_LENGTH  
 20 value shown in Table 3.7.2.3.2.22-6 corresponding to the  
 21 length of the Walsh code for the pilot that is used as the  
 22 Auxiliary pilot on the higher frequency of the two remaining  
 23 SR3 frequencies.

24                  **AUX\_PILOT\_WALSH2** - Walsh Code for the Auxiliary Pilot on the higher frequency of  
 25 the two remaining SR3 frequencies.

26                  If ADD\_INFO\_INCL2 is set to '0', the base station shall omit  
 27 this field; otherwise, the base station shall set this field as  
 28 follows:

29                  The base station shall set this field to the Walsh code  
 30 corresponding to the Auxiliary pilot on the higher frequency of  
 31 the two remaining SR3 frequencies.

32                  **RESERVED** - Reserved bits.

33                  The base station shall set all the bits of this field to '0' to make  
 34 the entire record octet-aligned.

36                  **SEARCH\_PRIORITY** - Pilot Channel search priority.

37                  If NGHBR\_SRCH\_MODE = '01' or NGHBR\_SRCH\_MODE = '11',  
 38 the base station shall include the field SEARCH\_PRIORITY  
 39 and shall set this field as described below; otherwise, the base  
 40 station shall omit this field.

41                  The base station shall set this field to the search priority for  
 42 the Pilot Channel corresponding to NGHBR\_PN. The base  
 43 station shall set the search priority as shown in Table  
 44 3.7.2.3.2.34-4.

**Table 3.7.2.3.2.34-4. Search Priority Field**

| <b>Value<br/>(binary)</b> | <b>Search Priority</b> |
|---------------------------|------------------------|
| 00                        | Low                    |
| 01                        | Medium                 |
| 10                        | High                   |
| 11                        | Very High              |

- SRCH\_WIN\_NGHBR - Neighbor pilot channel search window size.  
 If NGHBR\_SRCH\_MODE = '10' or NGHBR\_SRCH\_MODE = '11', the base station shall include the field SRCH\_WIN\_NGHBR and shall set this field as described below; otherwise, the base station shall omit this field.  
 The base station shall set this field to the value shown in Table 2.6.6.2.1-1 corresponding to the search window size to be used by mobile stations for this neighbor.
- SRCH\_OFFSET\_NGHBR - Neighbor pilot channel search window size offset.  
 If SRCH\_OFFSET\_INCL equals to '1', then the base station shall include the field SRCH\_OFFSET\_NGHBR and shall set this field as described below; otherwise, the base station shall omit this field.  
 The base station shall set this field to the value shown in Table 2.6.6.2.1-2 corresponding to the search window offset to be used by mobile stations for this neighbor.
- FREQ\_INCL - Frequency included indicator.  
 If FREQ\_FIELDS\_INCL is set to '1', the base station shall include the field FREQ\_INCL and shall set this field as described below; otherwise, the base station shall omit this field.  
 If the NGHBR\_BAND and NGHBR\_FREQ fields are included for this neighbor base station, the base station shall set this bit to '1'. If the NGHBR\_BAND and NGHBR\_FREQ fields are not included in this assignment record, the base station shall set this bit to '0'.
- NGHBR\_BAND - Neighbor band class.  
 If the FREQ\_INCL field is included and is set to '1', the base station shall include the field NGHBR\_BAND and shall set this field as described below; otherwise, the base station shall omit this field.

1                   The base station shall set this field to the CDMA band class,  
 2                   as specified in [30], corresponding to the CDMA frequency  
 3                   assignment for the CDMA Channel containing the Broadcast  
 4                   Control Channel/Forward Common Control Channel the  
 5                   mobile station is to search.

- 6                   **NGHBR\_FREQ** - Neighbor frequency assignment.  
 7                   If the FREQ\_INCL field is omitted or is set to '0', the base  
 8                   station shall omit this field.  
 9                   If the FREQ\_INCL field is included and is set to '1' and the  
 10                  corresponding neighbor has a 1X neighbor pilot record type,  
 11                  the base station shall set this field to the CDMA Channel  
 12                  number, in the specified CDMA band class, corresponding to  
 13                  the CDMA frequency assignment for the CDMA Channel  
 14                  containing the Broadcast Control Channel/Forward Common  
 15                  Control Channel the mobile station is to search.  
 16                  If the FREQ\_INCL field is included and is set to '1' and the  
 17                  corresponding neighbor has a 3X neighbor pilot record type,  
 18                  the base station shall set this field to the CDMA Channel  
 19                  number, in the specified CDMA band class, corresponding to  
 20                  the center SR3 frequency assignment containing the  
 21                  Broadcast Control Channel/Forward Common Control  
 22                  Channel the mobile station is to search.  
 23                  **TIMING\_INCL** - Timing included indicator.  
 24                  If USE\_TIMING is set to '1', the base station shall include the  
 25                  field TIMING\_INCL and set this field as described below;  
 26                  otherwise, the base station shall omit this field.  
 27                  If base station timing information is included for this neighbor  
 28                  base station, the base station shall set this field to '1';  
 29                  otherwise, the base station shall set this field to '0'.  
 30                  **NGHBR\_TX\_OFFSET** - Neighbor transmit time offset.  
 31                  If TIMING\_INCL is included and is set to '1', the base station  
 32                  shall include the field NGHBR\_TX\_OFFSET and shall set this  
 33                  field as described below; otherwise, the base station shall omit  
 34                  this field.  
 35                  The base station shall set this field to the time offset, in units  
 36                  of 80 ms, from the beginning of the neighbor timing period to  
 37                  the beginning of the first base station transmit window within  
 38                  the period. The beginning of the neighbor timing period  
 39                  occurs when  $\lfloor t/4 \rfloor \bmod (16384) = 0$ .  
 40                  **NGHBR\_TX\_DURATION** - Neighbor transmit time duration.  
 41                  If TIMING\_INCL is included and is set to '1' and  
 42                  GLOBAL\_TIMING\_INCL is set to '0', the base station shall  
 43                  include the field NGHBR\_TX\_DURATION and shall set this  
 44                  field as described below; otherwise, the base station shall omit  
 45                  this field.

1                   The base station shall set this field to duration of the base  
 2                   station transmit window, during each period, in units of  
 3                   80 ms. The base station should set this field to a value of 3 or  
 4                   greater.

- 5     **NGHBR\_TX\_PERIOD** - Neighbor transmit time period.  
 6                   If TIMING\_INCL is included and is set to '1' and  
 7                   GLOBAL\_TIMING\_INCL is set to '0', the base station shall  
 8                   include the field NGHBR\_TX\_PERIOD and shall set this field  
 9                   as described below; otherwise, the base station shall omit this  
 10                  field.

11                  The base station shall set this field to duration of the period,  
 12                  in units of 80 ms.

- 13     **ACCESS\_ENTRY\_HO** - Access entry handoff permitted when entering the System  
 14                  Access State.  
 15                  If NGHBR\_SET\_ENTRY\_INFO is equal to '1', the base station  
 16                  shall include the field ACCESS\_ENTRY\_HO and shall set this  
 17                  field as described below; otherwise, the base station shall omit  
 18                  this field.

19                  The base station shall set this field to '1' if the mobile station  
 20                  is permitted to perform an access entry handoff to the base  
 21                  station associated with the corresponding pilot between the  
 22                  time it receives a message on the Paging Channel when in the  
 23                  *Mobile Station Idle State* and it enters the *System Access State*  
 24                  to respond to the message; otherwise, the base station shall  
 25                  set this field to '0'.

- 26     **ACCESS\_HO\_ALLOWED** - Access handoff and access probe handoff permitted for the  
 27                  corresponding pilot while in the *System Access State*.

28                  If NGHBR\_SET\_ACCESS\_INFO is equal to '1', the base station  
 29                  shall include the field ACCESS\_HO\_ALLOWED and shall set  
 30                  this field as described below; otherwise, the base station shall  
 31                  omit this field.

32                  The base station shall set this field to '1' if the mobile station  
 33                  is permitted to perform an access handoff or access probe  
 34                  handoff to the base station associated with the corresponding  
 35                  pilot when the mobile station is in the *System Access State*  
 36                  (see 2.6.3.1.8 and 2.6.3.1.9); otherwise, the base station shall  
 37                  set this field to '0'.

- 38     **RESERVED** - Reserved bits.

39                  The base station shall add reserved bits as needed in order to  
 40                  make the length of the entire RADIO\_INTERFACE\_TYPE  
 41                  record equal to an integer number of octets. The base station  
 42                  shall set these bits to '0'.

43     If RADIO\_INTERFACE\_TYPE is equal to '0001', the base station shall include the following  
 44                  fields:

| <b>Field</b>     | <b>Length (bits)</b> |
|------------------|----------------------|
| NUM_ANALOG_NGHBR | 3                    |

NUM\_ANALOG\_NGHBR occurrences of the following subrecord:

|            |   |
|------------|---|
| BAND_CLASS | 5 |
| SYS_A_B    | 2 |

|          |                   |
|----------|-------------------|
| RESERVED | 0 – 7 (as needed) |
|----------|-------------------|

1

2 NUM\_ANALOG\_NGHBR - Number of neighboring analog systems.

3  
4 The base station shall set this field to the number of  
neighboring analog systems included in the message.

5

6 The base station shall include one occurrence of the following subrecord for each  
7 neighboring analog system included in the message:

8 BAND\_CLASS - Band class.

9 The base station shall set this field to the CDMA band class,  
10 as specified in [30].

11 SYS\_A\_B - System A/B.

12 If BAND\_CLASS is set to '00000' or to '00011', the base station  
13 shall set this field to the value shown in Table 3.7.2.3.2.34-5  
14 corresponding to the availability of neighboring analog  
15 systems; otherwise, the base station shall set this field to '00'.

16

**Table 3.7.2.3.2.34-5. Cellular System A/B**

| <b>Cellular System A/B</b> | <b>Value (Binary)</b> |
|----------------------------|-----------------------|
| RESERVED                   | 00                    |
| System A                   | 01                    |
| System B                   | 10                    |
| System A and B             | 11                    |

17

RESERVED - Reserved bits.

18 The base station shall add reserved bits as needed in order to  
19 make the length of the entire RADIO\_INTERFACE\_TYPE  
20 record equal to an integer number of octets. The base station  
21 shall set these bits to '0'.  
22

## 1    3.7.2.3.2.35 Security Mode Command Message

2    MSG\_TAG: SMCM

| Field                     | Length (bits) |
|---------------------------|---------------|
| <u>C_SIG_ENCRYPT_MODE</u> | 3             |
| <u>USE_NEW_KEY</u>        | 0 or 1        |
| <u>ENC_KEY_SIZE</u>       | 0 or 3        |
| <u>KEY_SEQ</u>            | 0 or 4        |

- 3
- 4    C\_SIG\_ENCRYPT\_MODE - Common channel encryption mode indicator.  
 5                 The base station shall set it this field to the common channel  
 6                 signaling message-encryption mode, as shown in Table 3.7.4.5-1.
- 7    USE\_NEW\_KEY      Use new encryption key indication  
 8                 If SIG\_ENCRYPT\_MODE is equal to '001', the base station shall  
 9                 include this field; otherwise, the base station shall omit this field.  
 10                If this field is included, the base station shall set this field to '0' to  
 11                indicate that the stored encryption key is to be used by the mobile  
 12                station, and to '1' to indicate that the new encryption key is to be  
 13                used by the mobile station.
- 14    ENC\_KEY\_SIZE - Key sSize used for user information and signaling encryption  
 15                 If C\_SIG\_ENCRYPT\_MODE is equal to '001', USE\_NEW\_KEY is  
 16                 included and is set to '0', the base station shall omit this field;  
 17                 otherwise, the base station shall include this field and set this  
 18                 field to the encryption key-size for user information  
 19                 encryption and signaling encryption according to as shown in  
 20                 Table 3.7.4.5-2; otherwise, the base station shall omit this  
 21                 field.
- 22    KEY\_SEQ      Encryption key sequence number.  
 23                 If USE\_NEW\_KEY is included and is set to '0', the base station  
 24                 shall include this field; otherwise, the base station shall omit this  
 25                 field. If this field is included, the base station shall set it to the  
 26                 encryption key sequence number to be used by the mobile  
 27                 station.

1    3.7.2.3.2.36 Universal Page Message

2    MSG\_TAG: UPM

3    When Layer 3 at the base station sends a PDU corresponding to the *Universal Page Message*  
 4    to Layer 2, it also sends the UPM Common fields to Layer 2. These UPM Common fields  
 5    and PDUs are used by Layer 2 to assemble the Layer 2 PDU or PDUs corresponding to the  
 6    *Universal Page Message* (see 3.1.2.3 of [4]).

7    UPM Common Fields:

8

| Field                | Length (bits) |
|----------------------|---------------|
| CONFIG_MSG_SEQ       | 6             |
| ACC_MSG_SEQ          | 6             |
| READ_NEXT_SLOT       | 1             |
| READ_NEXT_SLOT_BCAST | 1             |

9

10   PDU Format for a mobile station-addressed page:

11

| Field          | Length (bits)                                         |
|----------------|-------------------------------------------------------|
| SERVICE_OPTION | 16                                                    |
| ADD_MS_RECORD  | 0 or $8 \times \text{EXT\_MS\_SDU\_LENGTH}$ (see [4]) |

12

13   PDU Format for a mobile station-directed message announcement:

14

| Field | Length (bits) |
|-------|---------------|
| -     | 0             |

15

16   PDU Format for an enhanced broadcast page:

17

| <b>Field</b>                         | <b>Length (bits)</b>                                    |
|--------------------------------------|---------------------------------------------------------|
| <a href="#"><u>BCCH_INDEXBCN</u></a> | 3                                                       |
| TIME_OFFSET                          | 10                                                      |
| REPEAT_TIME_OFFSET                   | 0 or 5                                                  |
| ADD_BCAST_RECORD                     | 0 or $8 \times \text{EXT_BCAST\_SDU\_LENGTH}$ (see [4]) |

- 1
- 2     CONFIG\_MSG\_SEQ     - Configuration message sequence number.  
3                         The base station shall set this field to CONFIG\_SEQ  
4                         (see 3.6.2.2).
- 5     ACC\_MSG\_SEQ     - Access parameters message sequence number.  
6                         The base station shall set this field to ACC\_CONFIG\_SEQ  
7                         (see 3.6.2.2).
- 8     READ\_NEXT\_SLOT     - Pages carried into next slot indicator.  
9                         If all messages and records directed to mobile stations  
10                         operating in the slotted mode and active in this slot, are  
11                         included in this slot, the base station shall set this field to '0';  
12                         otherwise, the base station shall set this field to '1'.
- 13     READ\_NEXT-  
14         \_SLOT\_BCAST     - Enhanced Broadcast Pages carried into next slot indicator.  
15                         If all enhanced broadcast pages directed to mobile stations  
16                         operating in the slotted mode and active in this slot to receive  
17                         enhanced broadcast pages are included in this slot, the base  
18                         station shall set this field to '0'; otherwise, the base station  
19                         shall set this field to '1'.
- 20     SERVICE\_OPTION     - Service option.  
21                         The base station shall set this field to the service option code  
22                         shown in [\[30\]TSB58-B](#), corresponding to the requested service  
23                         option.
- 24     ADD\_MS\_RECORD     - Additional mobile station-addressed information record.  
25                         The base station shall omit this field if  
26                         EXT\_MS\_SDU\_LENGTH\_INCL (see 3.1.2.3.1.8 of [4]) is set to  
27                         '0'; otherwise, the base station shall include  
28                         EXT\_MS\_SDU\_LENGTH (see 3.1.2.3.1.8 of [4]) octets in this  
29                         field.
- 30     [BCCH\\_INDEX\\_BCN](#)     - [BCCH time index Broadcast Control Channel Number](#).  
31                         The base station shall set this field to the index of the BCCH  
32                         to which the mobile station is being redirected.
- 33     TIME\_OFFSET     - BCCH offset.

The base station shall set this field to one less than the time offset, in units of 40 ms, from the beginning of the slot in which this message began to the beginning of the Broadcast Control Channel slot to which the mobile station is being directed.

## REPEAT\_TIME-

## \_OFFSET

- BCCH offset of repeat.

If EXT BCAST SDU LENGTH IND (see [4]) is set to '01' or '11'

this field is included, the base station shall set this field to one less than the time offset, in units of 40 ms, from the time specified by TIME\_OFFSET to the beginning of the Broadcast Control Channel slot to which the mobile station is being directed for a repeat of the broadcast message. Otherwise, the base station shall omit this field.

## ADD\_BCAST\_RECORD

- Additional broadcast information record.

The base station shall omit this field if EXT\_BCAST\_SDU\_LENGTH\_IND (see 3.1.2.3.1.8 of [4]) is set to '00' or '01'; otherwise, the base station shall include EXT\_BCAST\_SDU\_LENGTH (see 3.1.2.3.1.8 of [4]) octets in this field.

- 1    3.7.3 f-dsch
- 2    During Traffic Channel operation, the base station sends signaling messages to the mobile
- 3    station using the f-dsch.
- 4    3.7.3.1 Reserved
- 5    3.7.3.2 Reserved

1    3.7.3.3 PDU Formats on the f-dsch

2    The signaling messages sent over the f-dsch are summarized in Table 3.7.3.3-1.

3

4    **Table 3.7.3.3-1. f-dsch Messages (Part 1 of 2)**

| <b>Message Name</b>                            | <b>MSG_TAG</b> | <b>Section Number</b> |
|------------------------------------------------|----------------|-----------------------|
| <i>Order Message</i>                           | ORDRM          | 3.7.3.3.2.1           |
| <i>Authentication Challenge Message</i>        | AUCM           | 3.7.3.3.2.2           |
| <i>Alert With Information Message</i>          | AWIM           | 3.7.3.3.2.3           |
| <i>Data Burst Message</i>                      | DBM            | 3.7.3.3.2.4           |
| <i>Analog Handoff Direction Message</i>        | AHDM           | 3.7.3.3.2.6           |
| <i>In-Traffic System Parameters Message</i>    | ITSPM          | 3.7.3.3.2.7           |
| <i>Neighbor List Update Message</i>            | NLUM           | 3.7.3.3.2.8           |
| <i>Send Burst DTMF Message</i>                 | BDTMFM         | 3.7.3.3.2.9           |
| <i>Power Control Parameters Message</i>        | PCNPM          | 3.7.3.3.2.10          |
| <i>Retrieve Parameters Message</i>             | RTPM           | 3.7.3.3.2.11          |
| <i>Set Parameters Message</i>                  | STPM           | 3.7.3.3.2.12          |
| <i>SSD Update Message</i>                      | SSDUM          | 3.7.3.3.2.13          |
| <i>Flash With Information Message</i>          | FWIM           | 3.7.3.3.2.14          |
| <i>Mobile Station Registered Message</i>       | MSRM           | 3.7.3.3.2.15          |
| <i>Status Request Message</i>                  | STRQM          | 3.7.3.3.2.16          |
| <i>Extended Handoff Direction Message</i>      | EHDM           | 3.7.3.3.2.17          |
| <i>Service Request Message</i>                 | SRQM           | 3.7.3.3.2.18          |
| <i>Service Response Message</i>                | SRPM           | 3.7.3.3.2.19          |
| <i>Service Connect Message</i>                 | SCM            | 3.7.3.3.2.20          |
| <i>Service Option Control Message</i>          | SOCM           | 3.7.3.3.2.21          |
| <i>TMSI Assignment Message</i>                 | TASM           | 3.7.3.3.2.22          |
| <i>Service Redirection Message</i>             | SRDM           | 3.7.3.3.2.23          |
| <i>Supplemental Channel Assignment Message</i> | SCAM           | 3.7.3.3.2.24          |
| <i>Power Control Message</i>                   | PCNM           | 3.7.3.3.2.25          |

5

1

**Table 3.7.3.3-1. f-dsch Messages (Part 2 of 2)**

| <b>Message Name</b>                                         | <b>MSG_TAG</b>          | <b>Section Number</b>        |
|-------------------------------------------------------------|-------------------------|------------------------------|
| <i>Extended Neighbor List Update Message</i>                | ENLUM                   | 3.7.3.3.2.26                 |
| <i>Candidate Frequency Search Request Message</i>           | CFSRQM                  | 3.7.3.3.2.27                 |
| <i>Candidate Frequency Search Control Message</i>           | CFSCNM                  | 3.7.3.3.2.28                 |
| <i>Power Up Function Message</i>                            | PUFM                    | 3.7.3.3.2.29                 |
| <i>Power Up Function Completion Message</i>                 | PUFCM                   | 3.7.3.3.2.30                 |
| <i>General Handoff Direction Message</i>                    | GHDM                    | 3.7.3.3.2.31                 |
| <i>Resource Allocation Message</i>                          | RAM                     | 3.7.3.3.2.32                 |
| <i>Resource Allocation Mini Message</i>                     | RAMM                    | 3.7.3.3.2.33                 |
| <i>Extended Release Message</i>                             | ERM                     | 3.7.3.3.2.34                 |
| <i>Extended Release Mini Message</i>                        | ERMM                    | 3.7.3.3.2.35                 |
| <i>Universal Handoff Direction Message</i>                  | UHDM                    | 3.7.3.3.2.36                 |
| <i>Extended Supplemental Channel Assignment Message</i>     | ESCAM                   | 3.7.3.3.2.37                 |
| <i>Forward Supplemental Channel Assignment Mini Message</i> | FSCAMM                  | 3.7.3.3.2.38                 |
| <i>Reverse Supplemental Channel Assignment Mini Message</i> | RSCAMM                  | 3.7.3.3.2.39                 |
| <i>Mobile Assisted Burst Operation Parameters Message</i>   | MABOPM                  | 3.7.3.3.2.40                 |
| <i>User Zone Reject Message</i>                             | UZRM                    | 3.7.3.3.2.41                 |
| <i>User Zone Update Message</i>                             | UZUM                    | 3.7.3.3.2.42                 |
| <i>Call Assignment Message</i>                              | CLAM                    | 3.7.3.3.2.43                 |
| <i>Extended Alert With Information Message</i>              | EAWIM                   | 3.7.3.3.2.44                 |
| <i>Extended Flash With Information Message</i>              | EFWIM                   | 3.7.3.3.2.45                 |
| <i>Security Mode Command Message</i>                        | SMCM                    | 3.7.3.3.2.46                 |
| <i>Base Station Status Response Message</i>                 | <a href="#">BSSRSPM</a> | <a href="#">3.7.3.3.2.47</a> |

2 3.7.3.3.1 Reserved

3 3.7.3.3.2 Message Body Contents

4 The following sections specify the contents of the message body for each message that may  
5 be sent on the f-dsch.

## 1    3.7.3.3.2.1 Order Message

2    MSG\_TAG: ORDRM

3

| <b>Field</b>                    | <b>Length (bits)</b>               |
|---------------------------------|------------------------------------|
| USE_TIME                        | 1                                  |
| ACTION_TIME                     | 6                                  |
| ORDER                           | 6                                  |
| ADD_RECORD_LEN                  | 3                                  |
| Order-specific fields (if used) | $8 \times \text{ADD\_RECORD\_LEN}$ |
| CON_REF_INCL                    | 0 or 1                             |
| CON_REF                         | 0 or 8                             |

4

- 5    USE\_TIME    -    Use action time indicator.  
 6    This field indicates whether an explicit action time is specified  
 7    in this order.  
 8    If an explicit action time can be specified for this order code,  
 9    as shown in Table 3.7.4-1, the base station may set this field  
 10   to '1'; otherwise, the base station shall set this field to '0'.
- 11    ACTION\_TIME    -    Action time.  
 12    If the USE\_TIME field is set to '1', the base station shall set  
 13    this field to the System Time, in units of 80 ms (modulo 64),  
 14    at which the order is to take effect. If the USE\_TIME field is  
 15    set to '0' the base station shall set this field to '000000'.
- 16    ORDER    -    Order code.  
 17    The base station shall set this field to the ORDER code for this  
 18    type of *Order Message* (see 3.7.4).
- 19    ADD\_RECORD\_LEN    -    Additional record length.  
 20    The base station shall set this field to the number of octets in  
 21    the order-specific fields included in this message.
- 22    Order-specific fields    -    Order-specific fields.  
 23    The base station shall include order-specific fields as specified  
 24    in 3.7.4.
- 25    CON\_REF\_INCL    -    Connection reference included indicator.  
 26    If the order carried by this message is not a Call Control order  
 27    (see 3.6.8), the base station shall omit this field; otherwise,  
 28    the base station shall include this field and set it as follows:

1                   The base station shall set this field to '1' if the connection  
2                   reference field is included in this message; otherwise, it shall  
3                   set this field to '0'.  
4

CON\_REF – Connection reference.

5                   If the CON\_REF\_INCL field is not included or is included but  
6                   is set to '0', the base station shall omit this field; otherwise,  
7                   the base station shall include this field and shall set it to the  
8                   value of the connection reference assigned to the service  
9                   option connection of the call, to which this message  
10                  corresponds.

## 1    3.7.3.3.2.2 Authentication Challenge Message

2    MSG\_TAG: AUCM

3

| <b>Field</b> | <b>Length (bits)</b> |
|--------------|----------------------|
| RANDU        | 24                   |

4

5    RANDU    -    Random challenge data.

6                 The base station shall set this field as specified in 2.3.12.1.4.

## 1    3.7.3.3.2.3 Alert With Information Message

2    MSG\_TAG: AWIM

3

| <b>Field</b>                                      | <b>Length (bits)</b>          |
|---------------------------------------------------|-------------------------------|
| Zero or more occurrences of the following record: |                               |
| RECORD_TYPE                                       | 8                             |
| RECORD_LEN                                        | 8                             |
| Type-specific fields                              | $8 \times \text{RECORD\_LEN}$ |

4

5    The base station shall include occurrences of the following three-field record as specified in  
6    3.7.5.

7       RECORD\_TYPE    -    Information record type.

8                      The base station shall set this field as specified in 3.7.5.

9       RECORD\_LEN    -    Information record length.

10                     The base station shall set this field to the number of octets in  
11                     the type-specific fields included in this record.

12       Type-specific fields    -    Type-specific fields.

13                     The base station shall include type-specific fields as specified  
14                     in 3.7.5.

## 1    3.7.3.3.2.4 Data Burst Message

2    MSG\_TAG: DBM

3

| <b>Field</b> | <b>Length (bits)</b> |
|--------------|----------------------|
| MSG_NUMBER   | 8                    |
| BURST_TYPE   | 6                    |
| NUM_MSGS     | 8                    |
| NUM_FIELDS   | 8                    |

4    NUM\_FIELDS occurrences of the following field:

|       |   |
|-------|---|
| CHARi | 8 |
|-------|---|

5

MSG\_NUMBER    -    Message number.  
 6                 The base station shall set this field to the number of this  
 7                 message within the data burst stream.

8

BURST\_TYPE    -    Data burst type.  
 9                 The base station shall set the value of this field for the type of  
 10                this data burst as defined in [30]. If the base station sets this  
 11                field equal to '111110', it shall set the first two CHARi fields of  
 12                this message equal to the EXTENDED\_BURST\_TYPE\_INTERNATIONAL field as described  
 13                in the definition of CHARi below. If the base station sets this  
 14                field equal to '111111', it shall set the first two CHARi fields of  
 15                this message equal to the EXTENDED\_BURST\_TYPE as described in the definition of CHARi below.  
 16

17

NUM\_MSGS    -    Number of messages in the data burst stream.  
 19                 The base station shall set this field to the number of messages  
 20                 in this data burst stream.

21

NUM\_FIELDS    -    Number of characters in this message.  
 22                 The base station shall set this field to the number of  
 23                 occurrences of the CHARi field included in this message.

24

CHARi    -    Character.  
 25                 The base station shall include NUM\_FIELDS occurrences of  
 26                 this field. The base station shall set these fields to the  
 27                 corresponding octet of the data burst stream.

If the BURST\_TYPE field of this message is equal to '111110', the first two CHARi octets shall represent a 16 bit EXTENDED\_BURST\_TYPE\_INTERNATIONAL field, which is encoded as shown below. The first ten bits of this field contain a binary mapping of the Mobile Country Code (MCC) associated with the national standards organization administering the use of the remaining octets of the message. Encoding of the MCC shall be as specified in 2.3.1.3. The remaining six bits of the EXTENDED\_BURST\_TYPE\_INTERNATIONAL field shall specify the COUNTRY\_BURST\_TYPE. The base station shall set the value of the COUNTRY\_BURST\_TYPE according to the type of this data burst as defined in standards governed by the country where this data burst type is to be used.

| <b>Field</b>           | <b>Length (bits)</b>               |
|------------------------|------------------------------------|
| Mobile Country Code    | 10                                 |
| COUNTRY_BURST_TYPE     | 6                                  |
| Remaining CHARi fields | $8 \times (\text{NUM_FIELDS} - 2)$ |

If the BURST\_TYPE field of this message is equal to '111111', the first two CHARi octets shall represent a single, 16 bit, EXTENDED\_BURST\_TYPE field, as shown below. The base station shall set the value of the EXTENDED\_BURST\_TYPE field according to the type of this data burst as defined in [30].

| <b>Field</b>                                    | <b>Length (bits)</b>               |
|-------------------------------------------------|------------------------------------|
| EXTENDED_BURST_TYPE<br>(first two CHARi fields) | 16                                 |
| Remaining CHARi fields                          | $8 \times (\text{NUM_FIELDS} - 2)$ |

1      3.7.3.3.2.5 Reserved

2      No text.

## 1    3.7.3.3.2.6 Analog Handoff Direction Message

2    MSG\_TAG: AHDM

3

| <b>Field</b> | <b>Length (bits)</b> |
|--------------|----------------------|
| USE_TIME     | 1                    |
| ACTION_TIME  | 6                    |
| SID          | 15                   |
| VMAC         | 3                    |
| ANALOG_CHAN  | 11                   |
| SCC          | 2                    |
| MEM          | 1                    |
| AN_CHAN_TYPE | 2                    |
| DSCC_MSB     | 1                    |
| BAND_CLASS   | 5                    |
| CON_REF_INCL | 1                    |
| CON_REF      | 0 or 8               |

4

5    USE\_TIME    -    Use action time indicator.

6                 This field indicates whether an explicit action time is specified  
7                 in this message.8                 If an explicit action time is specified in this message, the base  
9                 station shall set this field to '1'; otherwise, the base station  
10                shall set this field to '0'.

11                ACTION\_TIME    -    Action time.

12                 If the USE\_TIME field is set to '1', the base station shall set  
13                 this field to the System Time, in units of 80 ms (modulo 64),  
14                 at which the handoff is to take effect. If the USE\_TIME field is  
15                 set to '0' the base station shall set this field to '000000'.

16                 SID    -    System identification of the analog system.

17                 The base station shall set this field to the system identification  
18                 number for the analog system (see [6]).

19                 VMAC    -    Voice mobile station attenuation code.

20                 This field indicates the mobile station's power level associated  
21                 with the designated voice channel.22                 The base shall set this field to the MAC value shown in Table  
23                 2.1.2-1 of [12] corresponding to the nominal power for this  
24                 mobile station.

- 1 ANALOG\_CHAN - Analog voice channel number.  
 2 The base station shall set this field to the channel number of  
 3 the analog voice channel, as specified in Table 2.1.1-1 of [12].  
 4 SCC - SAT color code.  
 5 This indicates the supervisory audio tone associated with the  
 6 designated analog voice channel.  
 7 The base station shall set this field to the SAT value shown in  
 8 Table 3.7.1-2 of [12] and 2.4.1 of [12].  
 9 If the assignment is to a narrow analog channel, the base station  
 10 shall set this field to the two least significant bits of the DSCH.  
 11 MEM - Message encryption mode indicator.  
 12 To enable analog control message encryption on the assigned  
 13 forward and reverse analog voice channels, the base station  
 14 shall set this bit to '1'. To disable analog control message  
 15 encryption, the base station shall set this bit to '0'.  
 16 AN\_CHAN\_TYPE - Analog voice channel type.  
 17 The base station shall set this field to the analog channel type  
 18 as specified in Table 3.7.3.3.2.6-1. If the mobile station does  
 19 not have narrow analog capability, the base station shall set  
 20 this field to '00'.  
 21

**Table 3.7.3.3.2.6-1. Analog Channel Type**

| Description                             | Analog Ch | AN_CHAN_TYPE (Binary) |
|-----------------------------------------|-----------|-----------------------|
| Wide channel on ANALOG_CHAN             | N         | 00                    |
| Narrow channel 10 kHz below ANALOG_CHAN | NL        | 01                    |
| Narrow channel 10 kHz above ANALOG_CHAN | NU        | 10                    |
| Narrow channel centered on ANALOG_CHAN  | NM        | 11                    |

- 23  
 24 DSCC\_MSB - Digital supervisory audio tone color code most significant bit.  
 25 The base station shall set this field to '0' when directing  
 26 handoff to a wide analog channel. The base station shall set  
 27 this field to the most significant bit of the DSCH when  
 28 directing handoff to a narrow analog channel.  
 29 BAND\_CLASS - Band class.  
 30 The base station shall set this field according to values defined  
 31 in [30].

- 1           CON\_REF\_INCL – Connection reference included indicator.
- 2                             The base station shall set this field to ‘1’ if the connection  
3                             reference field is included in this message; otherwise, it shall  
4                             set this field to ‘0’.
- 5           CON\_REF – Connection reference.
- 6                             If the CON\_REF\_INCL field is set to ‘0’, the base station shall  
7                             omit this field; otherwise, the base station shall include this  
8                             field and shall set it to the value of the connection reference  
9                             assigned to the service option connection of the call which is  
10                            to be transferred to the analog system.

## 1    3.7.3.3.2.7 In-Traffic System Parameters Message

2    MSG\_TAG: ITSPM

3

| <b>Field</b>    | <b>Length (bits)</b> |
|-----------------|----------------------|
| SID             | 15                   |
| NID             | 16                   |
| SRCH_WIN_A      | 4                    |
| SRCH_WIN_N      | 4                    |
| SRCH_WIN_R      | 4                    |
| T_ADD           | 6                    |
| T_DROP          | 6                    |
| T_COMP          | 4                    |
| T_TDROPOFF      | 4                    |
| NGHBR_MAX_AGE   | 4                    |
| P_REV           | 8                    |
| SOFT_SLOPE      | 6                    |
| ADD_INTERCEPT   | 6                    |
| DROP_INTERCEPT  | 6                    |
| PACKET_ZONE_ID  | 8                    |
| EXTENSION       | 1                    |
| T_MULCHAN       | 0 or 3               |
| BEGIN_PREAMBLE  | 0 or 3               |
| RESUME_PREAMBLE | 0 or 3               |
| T_SLOT_INCL     | 1                    |
| T_SLOT_INCL     | 0 or 8               |
| ENC_SUPPORTED   | 1                    |
| SIG_ENCRYPT_SUP | 0 or 8               |
| UI_ENCRYPT_SUP  | 0 or 8               |
| CS_SUPPORTED    | 1                    |

4

5    SID - System identification.

6    The base station shall set this field to the system identification  
7    number for this cellular system (see 2.6.5.2).

|  |            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | NID        | - Network identification.<br>This field serves as a sub-identifier of a system as defined by the owner of the SID.                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|  |            | The base station shall set this field to the network identification number for this network (see 2.6.5.2).                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|  | SRCH_WIN_A | - Search window size for the Active Set and Candidate Set.<br>The base station shall set this field to the window size parameter shown in Table 2.6.6.2.1-1 corresponding to the number of PN chips that the mobile station is to search for pilots in the Active Set and Candidate Set.                                                                                                                                                                                                                                                                         |
|  | SRCH_WIN_N | - Search window size for the Neighbor Set.<br>The base station shall set this field to the window size parameter shown in Table 2.6.6.2.1-1 corresponding to the number of PN chips that the mobile station is to search for pilots in the Neighbor Set.                                                                                                                                                                                                                                                                                                         |
|  | SRCH_WIN_R | - Search window size for the Remaining Set.<br>The base station shall set this field to the window size parameter shown in Table 2.6.6.2.1-1 corresponding to the number of PN chips that the mobile station is to search for pilots in the Remaining Set.                                                                                                                                                                                                                                                                                                       |
|  | T_ADD      | - Pilot detection threshold.<br>This value is used by the mobile station to trigger the transfer of a pilot from the Neighbor Set or Remaining Set to the Candidate Set (see 2.6.6.2.6) and to trigger the sending of the <i>Pilot Strength Measurement Message</i> or <i>Extended Pilot Strength Measurement Message</i> initiating the handoff process (see 2.6.6.2.5.2).<br>The base station shall set this field to the pilot detection threshold, expressed as an unsigned binary number equal to $\lfloor -2 \times 10 \times \log_{10} E_c/I_o \rfloor$ . |
|  | T_DROP     | - Pilot drop threshold.<br>This value is used by the mobile station to start a handoff drop timer for pilots in the Active Set and the Candidate Set (see 2.6.6.2.3).<br>The base station shall set this field to the pilot drop threshold, expressed as an unsigned binary number equal to $\lfloor -2 \times 10 \times \log_{10} E_c/I_o \rfloor$ .                                                                                                                                                                                                            |
|  | T_COMP     | - Active Set versus Candidate Set comparison threshold.<br>The mobile station transmits a <i>Pilot Strength Measurement Message</i> or an <i>Extended Pilot Strength Measurement Message</i> when the strength of a pilot in the Candidate Set exceeds that of a pilot in the Active Set by this margin (see 2.6.6.2.5.2).<br>The base station shall set this field to the threshold Candidate Set pilot to Active Set pilot ratio, in units of 0.5 dB.                                                                                                          |

|    |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | T_TDROPOFF     | - Drop timer value.<br>Timer value after which an action is taken by the mobile station for a pilot that is a member of the Active Set or Candidate Set, and whose strength has not become greater than T_DROPOFF. If the pilot is a member of the Active Set, a <i>Pilot Strength Measurement Message</i> or an <i>Extended Pilot Strength Measurement Message</i> is issued. If the pilot is a member of the Candidate Set, it will be moved to the Neighbor Set. |
| 10 | 11             | 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 13 | NGHBR_MAX_AGE  | - Maximum age for retention of Neighbor Set members.<br>The mobile station drops neighbor set members whose AGE count exceeds this field.                                                                                                                                                                                                                                                                                                                           |
| 14 | 15             | 16                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 17 | P_REV          | - Protocol revision level.<br>The base station shall set this field to the base station protocol revision level.                                                                                                                                                                                                                                                                                                                                                    |
| 18 | 19             | 20                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 21 | SOFT_SLOPE     | - The slope in the inequality criterion for adding a pilot to the Active Set, or dropping a pilot from the Active Set (see 2.6.6.2.3 and 2.6.6.2.5.2).<br>The base station shall set this field as an unsigned binary number.                                                                                                                                                                                                                                       |
| 22 | 23             | 24                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 25 | ADD_INTERCEPT  | - The intercept in the inequality criterion for adding a pilot to the Active Set (see 2.6.6.2.5.2).<br>The base station shall set this field as a two's complement signed binary number, in units of dB.                                                                                                                                                                                                                                                            |
| 26 | 27             | 28                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 29 | DROP_INTERCEPT | - The intercept in the inequality criterion for dropping a pilot from the Active Set (see 2.6.6.2.3).<br>The base station shall set this field as a two's complement signed binary number, in units of dB.                                                                                                                                                                                                                                                          |
| 30 | 31             | 32                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 33 | PACKET_ZONE_ID | - Packet data services zone identifier.<br>If the base station supports a packet data service zone, the base station shall set this field to its non-zero packet data services zone identifier.<br>If the base station does not support a packet data service zone, the base station shall set this field to '00000000'.                                                                                                                                            |
| 34 | 35             | 36                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 37 | EXTENSION      | - Indicator that extension fields are present.<br>If Reverse Supplemental Code Channel or Reverse Supplemental Channel system parameters are included in this message, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.                                                                                                                                                                                       |
| 40 | 41             | 42                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 43 | 44             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

1           T\_MULCHAN   - *Supplemental Channel Request Message* pilot strength  
 2           reporting offset.

3           If EXTENSION is set to '1', the base station shall include this  
 4           field and set this field to the threshold offset that the mobile  
 5           station is to use when reporting neighbor pilot strength  
 6           measurements in a *Supplemental Channel Request Message*.  
 7           The mobile station is to interpret this field as an offset to  
 8           T\_ADD ranging from 0.5 dB (corresponding to T\_MULCHAN =  
 9           '000') to 4.0 dB (corresponding to T\_MULCHAN = '111') in 0.5  
 10          dB increments.

11          BEGIN\_PREAMBLE - Number of preamble frames on Reverse Supplemental Code  
 12           Channels at the beginning of transmission on Reverse  
 13           Supplemental Code Channel.

14          If EXTENSION is set to '1', the base station shall include this  
 15           field and set this field to the number of Reverse Supplemental  
 16           Code Channel preamble frames that the mobile station is to  
 17           send when beginning transmission on Reverse Supplemental  
 18           Code Channels.

19          RESUME\_PREAMBLE - Number of preamble frames on Reverse Supplemental Code  
 20           Channels at the resumption of transmission.

21          If EXTENSION is set to '1', the base station shall include this  
 22           field and set this field to the number of Reverse Supplemental  
 23           Code Channel preamble frames that the mobile station is to  
 24           send when resuming transmission on a Reverse Supplemental  
 25           Code Channel following an autonomous suspension of  
 26           transmission on an allocated Supplemental Code Channel.

27          T\_SLOTTED\_INCL - Slotted timer value included indicator.

28          The base station shall set this field to '1' if the slotted timer  
 29           value is included; otherwise, the base station shall set this  
 30           field to '0'.

31          T\_SLOTTED - Slotted timer value

32          If T\_SLOTTED\_INCL is set to '1', the base station shall include  
 33           this field and set this field to the value of the  $T_{MS\_Slotted}$   
 34           timer to be used by the mobile station in units of 80 ms.  
[otherwise, the base station shall omit this field.](#)

36          ENC\_SUPPORTED - Encryption fields included.

37          The base station shall set this field to '1' in the encryption  
 38           related fields are included; otherwise the base station shall set  
 39           this field to '0'.

40          SIG\_ENCRYPT\_SUP - Signaling Encryption supported indicator.

41          If ENC\_SUPPORTED is equal to '1', the base station shall  
 42           include this field; otherwise, the base station shall omit this  
 43           field. If this field is included, this field indicates which  
 44           signaling encryption algorithms are supported by the base  
 45           station.

1           This field consists of the subfields shown in Table 2.7.1.3.2.1-  
 2           5.

3           If this field is included, the base station shall set the subfields  
 4           as follows:

5           The base station shall set the CMEA subfield to '1'.

6           The base station shall set each other subfield to '1' if the  
 7           corresponding signaling algorithm is supported by the base  
 8           station; otherwise, the base station shall set the subfield to '0'.

9           The base station shall set the RESERVED subfield to '000000'.

10          UI\_ENCRYPT\_SUP    - User information Encryption supported indicator.

11           If ENC\_SUPPORTED is equal to '1', the base station shall  
 12           include this field; otherwise, the base station shall omit this  
 13           field. If this field is included, the base station shall set this  
 14           field to indicate the supported user information encryption  
 15           algorithms.

16           This field consists of the subfields shown in Table 2.7.1.3.2.4-  
 17           9.

18           The base station shall set each subfield to '1' if the  
 19           corresponding user information encryption algorithm is  
 20           supported by the base station; otherwise, the base station  
 21           shall set the subfield to '0'.

22          CS\_SUPPORTED    - Concurrent Services supported indicator.

23           If the base station supports concurrent services, the base  
 24           station shall set this field to '1'; otherwise, the base station  
 25           shall set this field to '0'.

## 1    3.7.3.3.2.8 Neighbor List Update Message

2    MSG\_TAG: NLUM

3

| <b>Field</b> | <b>Length (bits)</b> |
|--------------|----------------------|
| PILOT_INC    | 4                    |

One to 20 occurrences of the following field:

|          |   |
|----------|---|
| NGHBR_PN | 9 |
|----------|---|

4

5    PILOT\_INC    -    Pilot PN sequence offset index increment.

6                 The mobile station searches for Remaining Set pilots at pilot  
7                 PN sequence offset index values that are multiples of this  
8                 value.9                 The base station shall set this field to the pilot PN sequence  
10          increment, in units of 64 PN chips, that the mobile station is  
11          to use for searching the Remaining Set. The base station  
12          should set this field to the largest increment such that the  
13          pilot PN sequence offsets of all its neighbor base stations are  
14          integer multiples of that increment.

15          NGHBR\_PN    -    Neighbor pilot PN sequence offset index.

16                 The base station shall include one occurrence of this field for  
17                 each pilot in its neighbor list. The base station shall set this  
18                 field to the pilot's PN sequence offset, in units of 64 PN chips.  
19                 The base station shall include no more than 20 occurrences of  
20                 this field.

## 1    3.7.3.3.2.9 Send Burst DTMF Message

2    MSG\_TAG: BDTMFM

3

| <b>Field</b>    | <b>Length (bits)</b> |
|-----------------|----------------------|
| NUM_DIGITS      | 8                    |
| DTMF_ON_LENGTH  | 3                    |
| DTMF_OFF_LENGTH | 3                    |

NUM\_DIGITS occurrences of the following field:

|        |   |
|--------|---|
| DIGITi | 4 |
|--------|---|

|              |        |
|--------------|--------|
| CON_REF_INCL | 1      |
| CON_REF      | 0 or 8 |

4

- 5    NUM\_DIGITS    - Number of DTMF digits.  
                           The base station shall set this field to the number of DTMF  
                           digits included in this message.
- 6    DTMF\_ON\_LENGTH    - DTMF pulse width code.  
                           The base station shall set this field to the DTMF\_ON\_LENGTH  
                           value shown in Table 2.7.2.3.2.7-1 corresponding to the  
                           requested pulse width of the DTMF pulse to be generated by  
                           the mobile station.
- 7    DTMF\_OFF\_LENGTH    - DTMF interdigit interval code.  
                           The base station shall set this field to the  
                           DTMF\_OFF\_LENGTH value shown in Table 2.7.2.3.2.7-2  
                           corresponding to the requested minimum interdigit interval  
                           between DTMF pulses to be generated by the mobile station.
- 8    DIGITi    - DTMF digit.  
                           The base station shall include one occurrence of this field for  
                           each DTMF digit to be generated by the mobile station. The  
                           base station shall set each occurrence of this field to the code  
                           value shown in Table 2.7.1.3.2.4-4 corresponding to the dialed  
                           digit.
- 9    CON\_REF\_INCL    - Connection reference included indicator.  
                           The base station shall set this field to '1' if the connection  
                           reference field is included in this message; otherwise, it shall  
                           set this field to '0'.

1 CON\_REF – Connection reference.

2 If the CON\_REF\_INCL field is set to '0', the base station shall  
3 omit this field; otherwise, the base station shall include this  
4 field and shall set it to the value of the connection reference  
5 assigned to the service option connection of the call, to which  
6 this message corresponds.

## 1    3.7.3.3.2.10 Power Control Parameters Message

2    MSG\_TAG: PCNPM

3

| <b>Field</b>      | <b>Length (bits)</b> |
|-------------------|----------------------|
| PWR_REP_THRESH    | 5                    |
| PWR_REP_FRAMES    | 4                    |
| PWR_THRESH_ENABLE | 1                    |
| PWR_PERIOD_ENABLE | 1                    |
| PWR_REP_DELAY     | 5                    |

4

5    PWR\_REP\_THRESH    -    Power control reporting threshold.

6                         The base station shall set this field to the number of bad  
7                         frames (see [2]) to be received in a measurement period on the  
8                         channel which carries the Power Control Subchannel before  
9                         the mobile station is to generate a *Power Measurement Report*  
10                      Message (see 2.6.4.1.1). If the base station sets  
11                      PWR\_THRESH\_ENABLE to '1', it shall not set this field to  
12                      '00000'.

13                      PWR\_REP\_FRAMES    -    Power control reporting frame count.

14                         The base station shall set this field to the value such that the  
15                         number given by

16                          $\lfloor 2(\text{PWR\_REP\_FRAMES}/2) \times 5 \rfloor$  frames

17                         is the number of frames over which the mobile station is to  
18                         count frame errors.

19                         PWR\_THRESH-    -    Threshold report mode indicator.

20                         \_ENABLE             If the mobile station is to generate threshold *Power*  
21                         *Measurement Report Messages*, the base station shall set this  
22                         field to '1'. If the mobile station is not to generate threshold  
23                         *Power Measurement Report Messages*, the base station shall  
24                         set this field to '0'.

25                         PWR\_PERIOD-    -    Periodic report mode indicator.

26                         \_ENABLE             If the mobile station is to generate periodic *Power*  
27                         *Measurement Report Messages*, the base station shall set this  
28                         field to '1'. If the mobile station is not to generate periodic  
29                         *Power Measurement Report Messages*, the base station shall  
30                         set this field to '0'.

31                         PWR\_REP\_DELAY    -    Power report delay.

32                         The period that the mobile station waits following a *Power*  
33                         *Measurement Report Message* before restarting frame counting  
34                         for power control purposes.

1           The base station shall set this field to the power report delay  
2           value, in units of 4 frames (see 2.6.4.1.1).

## 1    3.7.3.3.2.11 Retrieve Parameters Message

2    MSG\_TAG: RTPM

3

| Field                                           | Length (bits) |
|-------------------------------------------------|---------------|
| One or more occurrences of the following field: |               |
| PARAMETER_ID                                    | 16            |

4

5    PARAMETER\_ID    -    Parameter identification.

6                      The base station can request the mobile station to report any  
7                      parameter specified in Table E-1.8                      The base station shall include one occurrence of this field for  
9                      each parameter requested. The base station shall set this  
10                     field to the parameter identification number specified in  
11                     Table E-1 corresponding to the parameter requested.

## 1    3.7.3.3.2.12 Set Parameters Message

2    MSG\_TAG: STPM

3

| <b>Field</b> | <b>Length (bits)</b> |
|--------------|----------------------|
|--------------|----------------------|

One or more occurrences of the following record:

|               |                   |
|---------------|-------------------|
| PARAMETER_ID  | 16                |
| PARAMETER_LEN | 10                |
| PARAMETER     | PARAMETER_LEN + 1 |

4

5    The base station shall include one occurrence of the following three-field record for each  
6    parameter to be set.

7        PARAMETER\_ID    -    Parameter identification.

8                          The base station shall set this field to the identification shown  
9                          in Table E-1 corresponding to the settable parameter to be set.

10      PARAMETER\_LEN    -    Parameter length.

11                          The base station shall set this field to the length shown in  
12                          Table E-1 corresponding to the parameter to be set.

13      PARAMETER    -    Parameter value.

14                          The base station shall set this field to the value of the  
15                          parameter specified by the PARAMETER\_ID field.

## 1    3.7.3.3.2.13 SSD Update Message

2    MSG\_TAG: SSDUM

3

| Field   | Length (bits) |
|---------|---------------|
| RANDSSD | 56            |

4

5    RANDSSD    -    Random data.

6                      The base station shall set this field as specified in 2.3.12.1.5.

## 1    3.7.3.3.2.14 Flash With Information Message

2    MSG\_TAG: FWIM

3

| <b>Field</b>                                     | <b>Length (bits)</b>          |
|--------------------------------------------------|-------------------------------|
| One or more occurrences of the following record: |                               |
| RECORD_TYPE                                      | 8                             |
| RECORD_LEN                                       | 8                             |
| Type-specific fields                             | $8 \times \text{RECORD\_LEN}$ |

4

5    The base station shall include occurrences of the following three-field record as specified in  
6    3.7.5.

7       RECORD\_TYPE    -    Information record type.

8                      The base station shall set this field as specified in 3.7.5.

9       RECORD\_LEN    -    Information record length.

10                     The base station shall set this field to the number of octets in  
11                     the type-specific fields included in this record.

12       Type-specific fields    -    Type-specific fields.

13                     The base station shall include type-specific fields as specified  
14                     in 3.7.5.

## 1    3.7.3.3.2.15 Mobile Station Registered Message

2    MSG\_TAG: MSRM

3

| <b>Field</b> | <b>Length (bits)</b> |
|--------------|----------------------|
| SID          | 15                   |
| NID          | 16                   |
| REG_ZONE     | 12                   |
| TOTAL_ZONES  | 3                    |
| ZONE_TIMER   | 3                    |
| MULT_SIDS    | 1                    |
| MULT_NIDS    | 1                    |
| BASE_LAT     | 22                   |
| BASE_LONG    | 23                   |
| REG_DIST     | 11                   |

4

5    SID    - System identification.

6    The base station shall set this field to the system identification  
7    number for this system.

8    NID    - Network identification.

9    This field serves as a sub-identifier of a system as defined by  
10   the owner of the SID.11   The base station shall set this field to the network  
12   identification number for this network. The NID value of  
13   65,535 is reserved.

14   REG\_ZONE    - Registration zone.

15   The base station shall set this field to its registration zone  
16   number (see 2.6.5.1.5).

17   TOTAL\_ZONES    - Number of registration zones to be retained.

18   The base station shall set this field to the number of  
19   registration zones the mobile station is to retain for purposes  
20   of zone-based registration (see 2.6.5.1.5).21   If zone-based registration is to be disabled, the base station  
22   shall set this field to '000'.

23   ZONE\_TIMER    - Zone timer length.

24   The base station shall set this field to the ZONE\_TIMER value  
25   shown in Table 3.7.2.3.2.1-1 corresponding to the length of  
26   the zone registration timer to be used by mobile stations.

- 1           MULT\_SIDS    -    Multiple SID storage indicator.  
2  
3  
4  
5           MULT\_NIDS    -    Multiple NID storage indicator.  
6  
7  
8  
9  
10          BASE\_LAT     -    Base station latitude.  
11  
12  
13  
14  
15  
16          BASE\_LONG    -    Base station longitude.  
17  
18  
19  
20  
21  
22  
23          REG\_DIST     -    Registration distance.  
24  
25  
26  
27  
28
- If mobile stations may store entries of SID\_NID\_LIST containing different SIDs, the base station shall set this field to '1'; otherwise the base station shall set this field to '0'.  
If mobile stations may store multiple entries of SID\_NID\_LIST having the same SID (with different NIDs), the base station shall set this field to '1'; otherwise the base station shall set this field to '0'.  
The base station shall set this field to its latitude in units of 0.25 second, expressed as a two's complement signed number with positive numbers signifying North latitudes. The base station shall set this field to a value in the range -1296000 to 1296000 inclusive (corresponding to a range of -90° to +90°).  
The base station shall set this field to its longitude in units of 0.25 second, expressed as a two's complement signed number with positive numbers signifying East longitude. The base station shall set this field to a value in the range -2592000 to 2592000 inclusive (corresponding to a range of -180° to +180°).  
If mobile stations are to perform distance-based registration, the base station shall set this field to the non-zero "distance" beyond which the mobile station is to re-register (see 2.6.5.1.4). If mobile stations are not to perform distance-based registration, the base station shall set this field to 0.

## 1    3.7.3.3.2.16 Status Request Message

2    MSG\_TAG: STRQM

3

| <b>Field</b>         | <b>Length (bits)</b>              |
|----------------------|-----------------------------------|
| QUAL_INFO_TYPE       | 8                                 |
| QUAL_INFO_LEN        | 3                                 |
| Type-specific fields | $8 \times \text{QUAL\_INFO\_LEN}$ |
| NUM_FIELDS           | 4                                 |

NUM\_FIELDS occurrences of the following field:

|             |   |
|-------------|---|
| RECORD_TYPE | 8 |
|-------------|---|

4

- 5    QUAL\_INFO\_TYPE    - Qualification information type.  
 6                         The base station shall set this field to the value shown in  
 7                         Table 3.7.2.3.2.15-1 to show the inclusion of qualification  
 8                         information in the type-specific fields.
- 9    QUAL\_INFO\_LEN    - Qualification information length.  
 10                       The base station shall set this field to the number of octets  
 11                       included in the type-specific fields of the qualification  
 12                       information.
- 13   Type-specific fields    - Type-specific fields.  
 14                         The base station shall set these fields to the qualification  
 15                       information according to the QUAL\_INFO\_TYPE field.  
 16                       If QUAL\_INFO\_TYPE is equal to '00000000', the type-specific  
 17                       fields are omitted.  
 18                       If QUAL\_INFO\_TYPE is equal to '00000001', the base station  
 19                       shall use the following fixed-length format for the type-specific  
 20                       fields:

| <b>Type-specific Field</b> | <b>Length (bits)</b> |
|----------------------------|----------------------|
| BAND_CLASS                 | 5                    |
| RESERVED                   | 3                    |

21

22                       If QUAL\_INFO\_TYPE is equal to '00000010', the base station  
 23                       shall use the following fixed-length format for the type-specific  
 24                       fields:

| Type-specific Field | Length (bits) |
|---------------------|---------------|
| BAND_CLASS          | 5             |
| OP_MODE             | 8             |
| RESERVED            | 3             |

- 1  
2        BAND\_CLASS - Band class.  
3                  The base station shall set this field to the CDMA band class,  
4                  as specified in [30].  
5        OP\_MODE - Operating mode.  
6                  The base station shall set this field as shown in  
7                  Table 3.7.2.3.2.15-3 to specify the operating mode  
8                  qualification information.  
9        RESERVED - Reserved bits.  
10                 The base station shall set this field to '000'.  
11       NUM\_FIELDS - Number of requested record fields in this message.  
12                 The base station shall set this field to the number of  
13                 occurrences of RECORD\_TYPE in this message.  
14       The base station shall only request the status information records qualified by the included  
15       qualification information in this message. The base station shall include one occurrence of  
16       the following field for each information record that is requested:  
17       RECORD\_TYPE - Information record type.  
18                 The base station shall set this field to the record type value  
19                 shown in Table 3.7.2.3.2.15-2 corresponding to the  
20                 information record requested.

## 1 3.7.3.3.2.17 Extended Handoff Direction Message

2 MSG\_TAG: EHDM

3

| <b>Field</b>    | <b>Length (bits)</b> |
|-----------------|----------------------|
| USE_TIME        | 1                    |
| ACTION_TIME     | 6                    |
| HDM_SEQ         | 2                    |
| SEARCH_INCLUDED | 1                    |
| SRCH_WIN_A      | 0 or 4               |
| T_ADD           | 0 or 6               |
| T_DROP          | 0 or 6               |
| T_COMP          | 0 or 4               |
| T_TDROPOFF      | 0 or 4               |
| HARD_INCLUDED   | 1                    |
| FRAME_OFFSET    | 0 or 4               |
| PRIVATE_LCM     | 0 or 1               |
| RESET_L2        | 0 or 1               |
| RESET_FPC       | 0 or 1               |
| SERV_NEG_TYPE   | 0 or 1               |
| ENCRYPT_MODE    | 0 or 2               |
| NOM_PWR_EXT     | 0 or 1               |
| NOM_PWR         | 0 or 4               |
| NUM_PREAMBLE    | 0 or 3               |
| BAND_CLASS      | 0 or 5               |
| CDMA_FREQ       | 0 or 11              |

4

(continues on next page)

1

| Field             | Length (bits)                 |
|-------------------|-------------------------------|
| ADD_LENGTH        | 3                             |
| Additional fields | $8 \times \text{ADD\_LENGTH}$ |

One or more occurrences of the following record:

|              |   |
|--------------|---|
| PILOT_PN     | 9 |
| PWR_COMB_IND | 1 |
| CODE_CHAN    | 8 |

2

- 3            USE\_TIME    -    Use action time indicator.  
 4                         This field indicates whether an explicit action time is specified  
 5                         in this message.  
 6                         If an explicit action time is specified in this message, the base  
 7                         station shall set this field to '1'; otherwise, the base station  
 8                         shall set this field to '0'.  
 9            ACTION\_TIME    -    Action time.  
 10                  If the USE\_TIME field is set to '1', the base station shall set  
 11                  this field to the System Time, in units of 80 ms (modulo 64),  
 12                  at which the handoff is to take effect. If the USE\_TIME field is  
 13                  set to '0' the base station shall set this field to '000000'.  
 14            HDM\_SEQ    -    *Extended Handoff Direction Message* sequence number.  
 15                  This field is used by the mobile station in the *Power*  
 16                  *Measurement Report Message* to identify the order in which  
 17                  the reported pilot strengths are sent.  
 18                  The base station shall set this field as specified in 2.6.6.2.2.2.  
 19            SEARCH\_INCLUDED    -    Pilot search parameters included.  
 20                  If the mobile station is to change its pilot search parameters,  
 21                  the base station shall set this field to '1'; otherwise, the base  
 22                  station shall set this field to '0'.  
 23            SRCH\_WIN\_A    -    Search window size for the Active Set and Candidate Set.  
 24                  If SEARCH\_INCLUDED is set to '1', the base station shall  
 25                  include the field SRCH\_WIN\_A and set this field to the window  
 26                  size parameter shown in Table 2.6.6.2.1-1 corresponding to  
 27                  the number of PN chips that the mobile station is to search for  
 28                  pilots in the Active Set and Candidate Set; otherwise, the base  
 29                  station shall omit this field.  
 30            T\_ADD    -    Pilot detection threshold.

1           This value is used by the mobile station to trigger the transfer  
 2           of a pilot from the Neighbor Set or Remaining Set to the  
 3           Candidate Set (see 2.6.6.2.6) and to trigger the sending of the  
 4           *Pilot Strength Measurement Message* or *Extended Pilot Strength*  
 5           *Measurement Message* initiating the handoff process (see  
 6           2.6.6.2.5.2).

7           If SEARCH\_INCLUDED is set to ‘1’, the base station shall  
 8           include the field T\_ADD and set this field to the pilot detection  
 9           threshold, expressed as an unsigned binary number equal to  
 10           $\lfloor -2 \times 10 \times \log_{10} E_c/I_o \rfloor$ ; otherwise, the base station shall omit  
 11          this field.

12          T\_DROP   - Pilot drop threshold.

13           This value is used by mobile stations to start a handoff drop  
 14           timer for pilots in the Active Set and the Candidate Set (see  
 15           2.6.6.2.3).

16           If SEARCH\_INCLUDED is set to ‘1’, the base station shall  
 17           include the field T\_DROP and set this field to the pilot drop  
 18           threshold, expressed as an unsigned binary number equal to  
 19            $\lfloor -2 \times 10 \times \log_{10} E_c/I_o \rfloor$ ; otherwise, the base station shall omit  
 20           this field.

21          T\_COMP   - Active Set versus Candidate Set comparison threshold.

22           The mobile station transmits a *Pilot Strength Measurement*  
 23           *Message* or an *Extended Pilot Strength Measurement Message*  
 24           when the strength of a pilot in the Candidate Set exceeds that  
 25           of a pilot in the Active Set by this margin (see 2.6.6.2.5.2).

26           If SEARCH\_INCLUDED is set to ‘1’, the base station shall  
 27           include the field T\_COMP and set this field to the threshold  
 28           Candidate Set pilot to Active Set pilot ratio, in units of 0.5 dB;  
 29           otherwise, the base station shall omit this field.

30          T\_TDROP   - Drop timer value.

31           Timer value after which an action is taken by the mobile  
 32           station for a pilot that is a member of the Active Set or  
 33           Candidate Set, and whose strength has not become greater  
 34           than T\_DROP. If the pilot is a member of the Active Set, a  
 35           *Pilot Strength Measurement Message* or an *Extended Pilot*  
 36           *Strength Measurement Message* is issued. If the pilot is a  
 37           member of the Candidate Set, it will be moved to the Neighbor  
 38           Set.

39           If SEARCH\_INCLUDED is set to ‘1’, the base station shall  
 40           include the field T\_TDROP and set this field to the T\_TDROP  
 41           value shown in Table 2.6.6.2.3-1 corresponding to the drop  
 42           timer value to be used by the mobile station; otherwise, the  
 43           base station shall omit this field.

44          HARD\_INCLUDED   - Hard handoff parameters included.

If the mobile station is to change FRAME\_OFFSET, PRIVATE\_LCM, ENCRYPT\_MODE, SERV\_NEG\_TYPE, NOM\_PWR\_EXT, NUM\_PREAMBLE, NOM\_PWR, BAND\_CLASS, or CDMA\_FREQ, or the mobile station is to perform a reset of the acknowledgment procedures, or the mobile station is to reset Forward Traffic Channel power control counters, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.

- |                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9        FRAME_OFFSET | - Frame offset.<br><br>The Forward and Reverse Traffic Channel frames are delayed $\text{FRAME\_OFFSET} \times 1.25$ ms relative to system timing (see [2]).<br><br>If HARD_INCLUDED is set to '1', the base station shall include the field FRAME_OFFSET and set it to the Forward and Reverse Traffic Channel frame offset; otherwise, the base station shall omit this field.                                                                                                                                                                                                                        |
| 16      PRIVATE_LCM   | - Private long code mask indicator.<br><br>This field is used to change the long code mask after a hard handoff.<br><br>If HARD_INCLUDED is set to '1', the base station shall include the field PRIVATE_LCM and set it as described below; otherwise, the base station shall omit this field.<br><br>If the private long code mask is to be used after the handoff, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.                                                                                                                             |
| 25      RESET_L2      | - Reset acknowledgment procedures command.<br><br>This field is used to reset acknowledgment processing in the mobile station.<br><br>If HARD_INCLUDED is set to '1', the base station shall include the field RESET_L2 and set it as described below; otherwise, the base station shall omit this field.<br><br>If the field is included and the mobile station is to reset its acknowledgment procedures, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.                                                                                      |
| 34      RESET_FPC     | - Reset Forward Traffic Channel power control.<br><br>This field is used to reset the Forward Traffic Channel power control counters.<br><br>If HARD_INCLUDED is set to '1', the base station shall include the field RESET_FPC and set it as described below; otherwise, the base station shall omit this field.<br><br>The base station shall set this field to '0' if the Forward Traffic Channel power control counters are to be maintained after completion of the handoff. If the counters are to be initialized as specified in 2.6.4.1.1.1, then the base station shall set this field to '1'. |

- 1           SERV\_NEG\_TYPE    - Service negotiation type.
- 2           If HARD\_INCLUDED is set to '1', the base station shall include  
 3           the field SERV\_NEG\_TYPE and set it as described below;  
 4           otherwise, the base station shall omit this field.
- 5           If the mobile station is to use service negotiation, the base  
 6           station shall set this field to '1'. If the mobile station is to use  
 7           service option negotiation, the base station shall set this field  
 8           to '0'.
- 9           ENCRYPT\_MODE     - Message encryption mode.
- 10          If HARD\_INCLUDED is set to '1', the base station shall include  
 11         the field ENCRYPT\_MODE and set it to the ENCRYPT\_MODE  
 12         value shown in Table 3.7.2.3.2.8-2 corresponding to the  
 13         encrypting mode that is to be used for messages sent on the  
 14         Forward and Reverse Traffic Channels, as specified  
 15         in 2.3.12.2; otherwise, the base station shall omit this field.
- 16          NOM\_PWR\_EXT      - Extended nominal transmit power.
- 17          If HARD\_INCLUDED is set to '1', the base station shall include  
 18         this field and set it as described below; otherwise, the base  
 19         station shall omit this field.
- 20          If this field is included and the mobile station is being handed  
 21         off to a base station operating in Band Class 0 or Band Class  
 22         3, the base station shall set this field to '0'; otherwise,-
- 23          If this field is included and the mobile station is being handed  
 24         off to a base station operating in a band class other than  
 25         Band Class 0 or Band Class 3, the base station shall set this  
 26         field to '1' if the correction factor to be used by the mobile  
 27         station in the open loop power estimate is between -24 dB and  
 28         -9 dB inclusive; otherwise (the correction factor is in the  
 29         range -8 dB to 7 dB inclusive), the base station shall set this  
 30         field to '0'.
- 31          NOM\_PWR           - Nominal transmit power offset.
- 32          If HARD\_INCLUDED is set to '1', the base station shall include  
 33         the field NOM\_PWR and set it to the correction factor to be  
 34         used by the mobile station in the open loop power estimate,  
 35         expressed as a two's complement value in units of 1 dB  
 36         (see [2]); otherwise, the base station shall omit this field.
- 37          NUM\_PREAMBLE     - Traffic Channel preamble length.
- 38          If HARD\_INCLUDED is set to '0', the base station shall omit  
 39         the NUM\_PREAMBLE field; otherwise, the base station shall  
 40         include this field and set it to the length of Traffic Channel  
 41         preamble that the mobile station is to send when performing a  
 42         handoff; as follows:

If, after the handoff, radio configuration 1 or radio configuration 2 is to be used, the base station shall set NUM\_PREAMBLE to the Traffic Channel preamble length in 20 ms units; otherwise, the base station shall set NUM\_PREAMBLE to the value shown in Table 3.7.3.3.2.17-1 corresponding to the Traffic Channel preamble length in 1.25 ms units.

**Table 3.7.3.3.2.17-1. Traffic Channel Preamble Length**

| <b>NUM_PREAMBLE<br/>(binary)</b> | <b>Preamble Length in 1.25 ms<br/>Increments</b> |
|----------------------------------|--------------------------------------------------|
| 000                              | 0                                                |
| 001                              | 2                                                |
| 010                              | 4                                                |
| 011                              | 6                                                |
| 100                              | 8                                                |
| 101                              | 10                                               |
| 110                              | 12                                               |
| 111                              | 16                                               |

- 9
- 10      BAND\_CLASS    -    Band class.  
 11      If HARD\_INCLUDED is set to '1', the base station shall include  
 12      the field BAND\_CLASS and set it to the CDMA band class  
 13      corresponding to the CDMA frequency assignment for the  
 14      CDMA Channel as specified in [30]; otherwise, the base  
 15      station shall omit this field.
- 16      CDMA\_FREQ    -    Frequency assignment.  
 17      If HARD\_INCLUDED is set to '1', the base station shall include  
 18      the field CDMA\_FREQ and set it to the CDMA Channel  
 19      number, in the specified CDMA band class, corresponding to  
 20      the CDMA frequency assignment for the CDMA Channel as  
 21      specified in [2]; otherwise, the base station shall omit this  
 22      field.
- 23      ADD\_LENGTH    -    Number of octets in the additional fields.  
 24      The base station shall set this field to the number of octets  
 25      included in the Additional fields. If Additional fields are not  
 26      included in this message, the base station shall set this field  
 27      to '000'.
- 28
- 29      Additional fields    -    Additional fields.  
 30      If the ADD\_LENGTH field is not equal to '000', the base station  
 31      shall include the following fields as additional fields.

| <b>Field</b> | <b>Length (bits)</b> |
|--------------|----------------------|
| P_REV        | 8                    |

1

2 P\_REV - Protocol revision level.

3 The base station shall set this field to the base station protocol  
4 revision level that the mobile station is to use after completion of  
5 the handoff.

6

7 The base station shall include one occurrence of the following three-field record for each  
8 member of the mobile station's new Active Set.

9 PILOT\_PN - Pilot PN sequence offset index.

10 The base station shall set this field to the pilot PN sequence  
11 offset for this pilot in units of 64 PN chips.

12 PWR\_COMB\_IND - Power control symbol combining indicator.

13 If the Forward Traffic Channel associated with this pilot will  
14 carry the same closed-loop power control subchannel bits as  
15 that of the previous pilot in this message, the base station  
16 shall set this field to '1'; otherwise, the base station shall set  
17 this field to '0'. For the first occurrence of this record in the  
18 message, the base station shall set this field to '0'.

19 CODE\_CHAN - Code channel index.

20 The base station shall set this field to the code channel index (see  
21 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use as  
22 the Forward Fundamental Channel associated with this pilot. If  
23 Radio Configuration 1, 2, 3, or 5 (see 3.1.3.1.2 of [2]) is used, the  
24 base station shall set this field in the range 1 to 63 inclusive. If  
25 Radio Configuration 4, 6 or 8 is used, the base station shall set  
26 this field in the range 1 to 127 inclusive. If Radio Configuration 7  
27 or 9 is used, the base station shall set this field in the range 1 to  
28 255 inclusive.

## 1    3.7.3.3.2.18 Service Request Message

2    MSG\_TAG: SRQM

3

| Field        | Length (bits) |
|--------------|---------------|
| SERV_REQ_SEQ | 3             |
| REQ_PURPOSE  | 4             |

Zero or one occurrence of the following record:

|                      |                               |
|----------------------|-------------------------------|
| RECORD_TYPE          | 8                             |
| RECORD_LEN           | 8                             |
| Type-specific fields | $8 \times \text{RECORD\_LEN}$ |

4

5    SERV\_REQ\_SEQ - Service request sequence number.

6                         The base station shall set this field to the service request  
7                         sequence number pertaining to this request message as  
8                         specified in 3.6.4.1.2.1.1.

9    REQ\_PURPOSE - Request purpose.

10                        The base station shall set this field to the appropriate  
11                        REQ\_PURPOSE code from Table 3.7.3.3.2.18-1 to indicate the  
12                        purpose of the message.

13

14                        **Table 3.7.3.3.2.18-1. REQ\_PURPOSE Codes**

| REQ_PURPOSE<br>(binary)                   | Meaning                                                                                   |
|-------------------------------------------|-------------------------------------------------------------------------------------------|
| 0001                                      | Indicates that the purpose of this message is to reject a proposed service configuration. |
| 0010                                      | Indicates that the purpose of this message is to propose a service configuration.         |
| All other REQ_PURPOSE codes are reserved. |                                                                                           |

15

16    If the REQ\_PURPOSE code is set to '0010', the base station shall include one occurrence of  
17                        the following three-field record to specify the proposed service configuration; otherwise, the  
18                        base station shall not include the following record.

19    RECORD\_TYPE - Information record type.

1                   The base station shall set this field to the record type value  
2                   shown in Table 3.7.5-1 corresponding to the Service  
3                   Configuration information record.

- 4           RECORD\_LEN     - Information record length.  
5                   The base station shall set this field to the number of octets  
6                   included in the type-specific fields of the Service Configuration  
7                   information record.
- 8       Type-specific fields     - Type-specific fields.  
9                   The base station shall set these fields as specified in 3.7.5.7  
10                  for the Service Configuration information record.

## 1    3.7.3.3.2.19 Service Response Message

2    MSG\_TAG: SRPM

3

| <b>Field</b> | <b>Length (bits)</b> |
|--------------|----------------------|
| SERV_REQ_SEQ | 3                    |
| RESP_PURPOSE | 4                    |

Zero or one occurrence of the following record:

|                      |                               |
|----------------------|-------------------------------|
| RECORD_TYPE          | 8                             |
| RECORD_LEN           | 8                             |
| Type-specific fields | $8 \times \text{RECORD\_LEN}$ |

4

5    SERV\_REQ\_SEQ    -    Service request sequence number.

6                         The base station shall set this field to the value of the  
7                         SERV\_REQ\_SEQ field in the *Service Request Message* to which  
8                         it is responding.

9    RESP\_PURPOSE    -    Response purpose.

10                        The base station shall set this field to the appropriate  
11                         RESP\_PURPOSE code from Table 3.7.3.3.2.19-1 to indicate  
12                         the purpose of the message.

13

14                         **Table 3.7.3.3.2.19-1. RESP\_PURPOSE Codes**

| <b>RESP_PURPOSE<br/>(binary)</b>           | <b>Meaning</b>                                                                           |
|--------------------------------------------|------------------------------------------------------------------------------------------|
| 0001                                       | Indicates that the purpose of the message is to reject a proposed service configuration. |
| 0010                                       | Indicates that the purpose of the message is to propose a service configuration.         |
| All other RESP_PURPOSE codes are reserved. |                                                                                          |

15

16    If the RESP\_PURPOSE code is set to '0010', the base station shall include one occurrence of  
17                         the following three-field record to specify the proposed service configuration; otherwise, the  
18                         base station shall not include the following record.

19    RECORD\_TYPE    -    Information record type.

1                   The base station shall set this field to the record type value  
2                   shown in Table 3.7.5-1 corresponding to the Service  
3                   Configuration information record.

- 4           RECORD\_LEN    - Information record length.  
5                   The base station shall set this field to the number of octets  
6                   included in the type-specific fields of the Service Configuration  
7                   information record.
- 8       Type-specific fields    - Type-specific fields.  
9                   The base station shall set these fields as specified in 3.7.5.7  
10                  for the Service Configuration information record.

1 3.7.3.3.2.20 Service Connect Message

2 MSG\_TAG: SCM

3

| Field               | Length (bits)                 |
|---------------------|-------------------------------|
| USE_TIME            | 1                             |
| ACTION_TIME         | 6                             |
| SERV_CON_SEQ        | 3                             |
| RESERVED            | <u>42</u>                     |
| USE_OLD_SERV_CONFIG | <u>42</u>                     |
| <u>SYNC ID INCL</u> | <u>1</u>                      |
| <u>SYNC ID LEN</u>  | <u>0 or 4</u>                 |
| <u>SYNC ID</u>      | <u>0 or (8 x SYNC ID LEN)</u> |

Zero or one occurrence of the following three-field record:

|                      |                |
|----------------------|----------------|
| RECORD_TYPE          | 8              |
| RECORD_LEN           | 8              |
| Type-specific fields | 8 × RECORD_LEN |

Zero or one occurrence of the following three-field record:

|                      |                |
|----------------------|----------------|
| RECORD_TYPE          | 8              |
| RECORD_LEN           | 8              |
| Type-specific fields | 8 × RECORD_LEN |

|                  |        |
|------------------|--------|
| CC_INFO_INCL     | 0 or 1 |
| NUM_CALLS_ASSIGN | 0 or 8 |

NUM\_CALLS\_ASSIGN occurrences of the following variable length record:

|                     |        |
|---------------------|--------|
| CON_REF             | 8      |
| RESPONSE_IND        | 1      |
| TAG                 | 0 or 4 |
| BYPASS_ALERT_ANSWER | 0 or 1 |

4

5 USE\_TIME - Use action time indicator.

1           This field indicates whether an explicit action time is specified  
 2           in this message.

3           If an explicit action time is specified in this message, the base  
 4           station shall set this field to '1'; otherwise, the base station  
 5           shall set this field to '0'.

6           ACTION\_TIME    - Action time.  
 7                         If the USE\_TIME field is set to '1', the base station shall set  
 8                         this field to the System Time, in units of 80 ms (modulo 64),  
 9                         at which the specified service configuration is to take effect. If  
 10                  the USE\_TIME field is set to '0' the base station shall set this  
 11                  field to '000000'.

12           SERV\_CON\_SEQ - Connect sequence number.  
 13                         The base station shall set this field to the connect sequence  
 14                         number pertaining to this connect message as specified in  
 15                  3.6.4.1.2.1.2.

16           RESERVED      - Reserved bits.  
 17                         The base station shall set this field to '~~00~~00'.

18           USE\_OLD-  
 19            \_SERV\_CONFIG - Use stored service configuration indicator.

20           This field may be used by the base station to instruct the  
 21           mobile station to use the stored service configuration (that is,  
 22           both the Service Configuration information record and the  
 23           Non-negotiable Service Configuration information record)  
 24           if based on the value of the 16-bit CRC computed over the new  
 25           service configuration (see 2.6.11) matches the SYNC\_ID that  
 26           the mobile station has reported in the Origination Message or  
 27           Page Response Message.

28           If MOB\_P\_REV is less than seven, the base station shall set  
 29           this field to '00'.

---

30           or if a service configuration has been sent successfully to the  
 31           mobile station upon entering the *Traffic Channel Substate*, the  
 32           base station shall set this field to '00'; otherwise, the base  
 33           station shall set this field according to Table 3.7.3.3.2.20-1 as  
 34           follows:

**Table 3.7.3.3.2.20-1. USE OLD SERV CONFIG values**

| <u>USE OLD SERV CONFIG Field<br/>(binary)</u> | <u>Description</u>                                                                                                                                  |
|-----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| <u>00</u>                                     | <u>Mobile Station is to use the SCR and NNSCR included in this message</u>                                                                          |
| <u>01</u>                                     | <u>Mobile Station is to use the stored service configuration</u>                                                                                    |
| <u>10</u>                                     | <u>Mobile Station is to use the stored service configuration but with the modifications specified by the SCR and NNSCR included in this message</u> |
| <u>11</u>                                     | <u>Reserved</u>                                                                                                                                     |

If the base station is to direct the mobile station to use the stored service configuration (that is, both the Service Configuration information record and the Non-negotiable Service Configuration information record), the base station shall set this field to '1'; otherwise the base station shall set this field to '0'.

SYNC\_ID\_INCL - Service Configuration synchronization identifier included indicator.

If MOB\_P\_REV is less than seven or USE\_OLD\_SERV\_CONFIG field is set to '01', the base station shall set this field to '0'. The base station shall set this field to '1' if the SYNC\_ID field is included in this message; otherwise, the base station shall set this field to '0'.

SYNC\_ID\_LEN - Service Configuration synchronization identifier length.

If the SYNC\_ID\_INCL field is set to '0', the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

1                   The base station shall set this field to the length (in octets) of  
 2                   the SYNC ID field included in this message. The base station  
 3                   shall set this field to a value larger than zero.

4                   **SYNC\_ID** - Service Configuration synchronization identifier.

5                   If the SYNC ID INCL field is set to '0', the base station shall  
 6                   omit this field; otherwise, the base station shall include this  
 7                   field and set it as follows:

8                   The base station shall set this field to the synchronization  
 9                   identifier corresponding to the service configuration conveyed  
 10                  by this message.

11                  If USE\_OLD\_SERV\_CONFIG is equal to 'Q1', the base station shall omit the following record;  
 12                  otherwise the base station shall include one occurrence of the following three-field record to  
 13                  specify the service configuration.

14                  **RECORD\_TYPE** - Information record type.

15                  The base station shall set this field to the record type value  
 16                  shown in Table 3.7.5-1 corresponding to the Service  
 17                  Configuration information record.

18                  **RECORD\_LEN** - Information record length.

19                  The base station shall set this field to the number of octets  
 20                  included in the type-specific fields of the Service Configuration  
 21                  information record.

22                  **Type-specific fields** - Type-specific fields.

23                  The base station shall set these fields as specified in 3.7.5.7  
 24                  for the Service Configuration information record.

25                  If USE\_OLD\_SERV\_CONFIG is equal to 'Q1', the base station shall omit the following record;  
 26                  otherwise the base station shall include one occurrence of the following three-field record to  
 27                  specify the non-negotiable service configuration parameters.

29                  **RECORD\_TYPE** - Information record type.

30                  The base station shall set this field to the record type value  
 31                  shown in Table 3.7.5-1 corresponding to the Non-Negotiable  
 32                  Service Configuration information record.

33                  **RECORD\_LEN** - Information record length.

34                  The base station shall set this field to the number of octets  
 35                  included in the type-specific fields of the Non-Negotiable  
 36                  Service Configuration information record.

37                  **Type-specific fields** - Type-specific fields.

38                  The base station shall set these fields as specified in 3.7.5.20  
 39                  for the Non-Negotiable Service Configuration information  
 40                  record.

- 1           CC\_INFO\_INCL   - Call Control information included indicator.
- 2           |           If the USE\_OLD\_SERV\_CONFIG field is set to '['01'](#) or '['10'](#)', the  
3           |           base station shall omit this field; otherwise, the base station  
4           |           shall include this field and set it as follows:
- 5           |           The base station shall set this field to '1' if Call Control related  
6           |           parameters (to assign new call(s)) are included in this  
7           |           message; otherwise, the base station shall set this field to '0'.
- 8           NUM\_CALLS\_ASSIGN   - Number of call assignments.
- 9           |           If the CC\_INFO\_INCL field is not included or is included but is  
10          |           set to '0', the base station shall omit this field; otherwise, the  
11          |           base station shall include this field and set it as follows:
- 12          |           The base station shall set this field to the number of new call  
13          |           assignments included in this message.
- 14          The base station shall include NUM\_CALLS\_ASSIGN occurrences of the following variable  
15          length record.
- 16           CON\_REF   - Connection reference.
- 17           |           The base station shall set this field to the connection reference  
18           |           of the service option connection corresponding to this call.
- 19           RESPONSE\_IND   - Response indicator.
- 20           |           The base station shall set this field to '1' if this call  
21           |           assignment is a response to an *Enhanced Origination Message*  
22           |           from the mobile station; otherwise, the base station shall set  
23           |           this field to '0'.
- 24           TAG   - Transaction identifier.
- 25           |           If the RESPONSE\_IND field is set to '0', the base station shall  
26           |           omit this field; otherwise, the base station shall include this  
27           |           field and set it as follows:
- 28           |           The base station shall set this field to the value of the TAG  
29           |           field received in the *Enhanced Origination Message* to which  
30           |           this call assignment is the response.
- 31           BYPASS\_ALERT-
- 32           |           ANSWER   - Bypass alert indicator.

1       If the RESPONSE\_IND field is set to ‘1’, the base station shall  
2       omit this field; otherwise, the base station shall include this  
3       field and set it as follows:

4       If the mobile station is to bypass the *Waiting for Order*  
5       *Substate* and the *Waiting for Mobile Station Answer Substate*  
6       for this call, the base station shall set this field to ‘1’;  
7       otherwise, the base station shall set this field to ‘0’.

## 1    3.7.3.3.2.21 Service Option Control Message

2    MSG\_TAG: SOCM

3

| <b>Field</b>         | <b>Length (bits)</b>            |
|----------------------|---------------------------------|
| USE_TIME             | 1                               |
| ACTION_TIME          | 6                               |
| CON_REF              | 8                               |
| SERVICE_OPTION       | 16                              |
| CTL_REC_LEN          | 8                               |
| Type-specific fields | $8 \times \text{CTL\_REC\_LEN}$ |

4

5    USE\_TIME    -    Use action time indicator.

6                 This field indicates whether an explicit action time is specified  
7                 in this message.8                 If an explicit action time is specified in this message, the base  
9                 station shall set this field to '1'; otherwise, the base station  
10                shall set this field to '0'.

11                ACTION\_TIME    -    Action time.

12                 If the USE\_TIME field is set to '1', the base station shall set  
13                 this field to the System Time, in units of 80 ms (modulo 64),  
14                 at which the message is to take effect. If the USE\_TIME field  
15                 is set to '0' the base station shall set this field to '000000'.

16                 CON\_REF    -    Service option connection reference.

17                 The base station shall set this field to the reference for the  
18                 service option connection.

19                 SERVICE\_OPTION    -    Service option.

20                 The base station shall set this field to the service option in use  
21                 with the service option connection.

22                 CTL\_REC\_LEN    -    Service option control record length.

23                 The base station shall set this field to the number of octets  
24                 included in the type-specific fields of this service option  
25                 control record.

26                 Type-specific fields    -    Type-specific fields.

27                 The base station shall set these fields as specified by the  
28                 requirements for the service option, which are defined  
29                 external to this specification. See relevant service option  
30                 specification.

## 1    3.7.3.3.2.22 TMSI Assignment Message

2    MSG\_TAG: TASM

3

| <b>Field</b>  | <b>Length (bits)</b>              |
|---------------|-----------------------------------|
| TMSI_ZONE_LEN | 4                                 |
| TMSI_ZONE     | $8 \times \text{TMSI\_ZONE\_LEN}$ |
| TMSI_CODE     | 32                                |
| TMSI_EXP_TIME | 24                                |

4

5    TMSI\_ZONE\_LEN    -    TMSI zone length.

6                         The base station shall set this field to the number of octets  
7                         included in the TMSI\_ZONE. The base station shall set this  
8                         field to a value in the range 1 to 8 inclusive.

9    TMSI\_ZONE    -    TMSI zone.

10                        The base station shall set this field to the TMSI zone number,  
11                         as specified in [27].

12    TMSI\_CODE    -    Temporary mobile station identity code.

13                        The base station shall set this field to the 32-bit TMSI code  
14                         assigned to the mobile station.15                        If the base station is to deassign the TMSI, the base station  
16                         shall set all the bits in this field to '1'.

17    TMSI\_EXP\_TIME    -    TMSI expiration time.

18                        The base station shall set this field to the System Time in the  
19                         units of  $80 \text{ ms} \times 2^{12}$  when the TMSI is to expire.

## 1    3.7.3.3.2.23 Service Redirection Message

2    MSG\_TAG: SRDM

3

| <b>Field</b>   | <b>Length (bits)</b> |
|----------------|----------------------|
| RETURN_IF_FAIL | 1                    |
| DELETE_TMSI    | 1                    |
| REDIRECT_TYPE  | 1                    |

One or more occurrences of the following field:

|                      |                               |
|----------------------|-------------------------------|
| RECORD_TYPE          | 8                             |
| RECORD_LEN           | 8                             |
| Type-specific fields | $8 \times \text{RECORD\_LEN}$ |

4

5    RETURN\_IF\_FAIL    -    Return if fail indicator.

6    The base station shall set this field to ‘1’ if the mobile station  
7    is required to return to the system from which it is being  
8    redirected upon failure to obtain service using the redirection  
9    criteria specified in this message; otherwise, the base station  
10   shall set this field to ‘0’.

11    DELETE\_TMSI    -    Delete TMSI indicator.

12    The base station shall set this field to ‘1’ if the mobile station  
13   is required to delete the TMSI assigned to the mobile station;  
14   otherwise, the base station shall set this field to ‘0’.

15    REDIRECT\_TYPE    -    Redirect indicator.

16    The base station shall set this field to the REDIRECT\_TYPE value  
17   shown in Table 3.7.2.3.2.16-1 corresponding to the redirection  
18   type.

20    The base station shall include one occurrence of the following record:

21    RECORD\_TYPE    -    Redirection record type.

22    The base station shall set this field to the RECORD\_TYPE value  
23   shown in Table 3.7.2.3.2.16-2 corresponding to the type of  
24   redirection specified by this record.

25    RECORD\_LEN    -    Redirection record length.

26    If RECORD\_TYPE equals to ‘00000000’, the base station shall  
27   set this field to ‘00000000’; otherwise, the base station shall  
28   set this field to the number of octets in the type-specific fields  
29   of this redirection record.

30    Type-specific fields    -    Redirection record type-specific fields.

1           The base station shall include type-specific fields based on the  
 2           RECORD\_TYPE of this redirection record.

3       If RECORD\_TYPE is equal to '00000000', the base station shall not include the type-specific  
 4       fields.

5       If RECORD\_TYPE is equal to '00000001', the base station shall include the following fields:

| <b>Field</b> | <b>Length (bits)</b> |
|--------------|----------------------|
| EXPECTED_SID | 15                   |
| IGNORE_CDMA  | 1                    |
| SYS_ORDERING | 3                    |
| RESERVED     | 5                    |

7  
 8       EXPECTED\_SID    -    Expected SID.  
 9                         If the base station is redirecting the mobile station to a  
 10                        specific system, the base station shall set this field to the SID  
 11                        of that system; otherwise, the base station shall set this field  
 12                        to 0.

13       IGNORE\_CDMA    -    Ignore CDMA Available indicator.  
 14                         The base station shall set this field to '1' to indicate that the  
 15                        mobile station is to ignore the *CDMA Capability Message* on  
 16                        the analog system to which it is being redirected. The base  
 17                        station shall set this field to '0' to indicate that the mobile  
 18                        station may discontinue service on the system to which it is  
 19                        being redirected if the mobile station receives a *CDMA Capability Message* with  
 20                        CDMA\_AVAIL equal to '1', and the preferred mode of the mobile station is CDMA.  
 21

22       SYS\_ORDERING   -    System ordering.  
 23                         The base station shall set this field to the SYS\_ORDERING  
 24                        value shown in Table 3.7.2.3.2.16-3 corresponding to the  
 25                        order in which the mobile station is to attempt to obtain  
 26                        service on an analog system.

27       RESERVED        -    Reserved bits.  
 28                         The base station shall set this field to '00000'.

29       If RECORD\_TYPE is equal to '00000010', the base station shall include the following fields:

30

| <b>Subfield</b> | <b>Length (bits)</b> |
|-----------------|----------------------|
| BAND_CLASS      | 5                    |
| EXPECTED_SID    | 15                   |
| EXPECTED_NID    | 16                   |
| RESERVED        | 4                    |
| NUM_CHANS       | 4                    |

NUM\_CHANS occurrences of the following field:

|           |    |
|-----------|----|
| CDMA_CHAN | 11 |
|-----------|----|

|          |                 |
|----------|-----------------|
| RESERVED | 0-7 (as needed) |
|----------|-----------------|

- 1
- 2        BAND\_CLASS    - Band class.  
3                      The base station shall set this field to the CDMA band class, as  
4                      specified in [30].
- 5        EXPECTED\_SID    - Expected SID.  
6                      If the base station is redirecting the mobile station to a  
7                      specific system, the base station shall set this field to the SID  
8                      of that system; otherwise, the base station shall set this field  
9                      to 0.
- 10      EXPECTED\_NID    - Expected NID.  
11                     If the base station is redirecting the mobile station to a  
12                     specific network, the base station shall set this field to the  
13                     NID of that network; otherwise, the base station shall set this  
14                     field to 65535.
- 15      RESERVED        - Reserved bits.  
16                     The base station shall set this field to '0000'.
- 17      NUM\_CHANS      - Number of CDMA Channels.  
18                     The base station shall set this field to the number of  
19                     occurrences of the CDMA\_CHAN field in this record.
- 20      CDMA\_CHAN      - CDMA Channel number.  
21                     For each CDMA Channel on which the mobile station is to  
22                     attempt to acquire a CDMA system, the base station shall  
23                     include one occurrence of this field specifying the associated  
24                     CDMA Channel number.
- 25      RESERVED        - Reserved bits.  
26                     The base station shall add reserved bits as needed in order to  
27                     make the length of the entire record equal to an integer  
28                     number of octets. The base station shall set these bits to '0'.

## 1    3.7.3.3.2.24 Supplemental Channel Assignment Message

2    MSG\_TAG: SCAM

3

| <b>Field</b>    | <b>Length (bits)</b> |
|-----------------|----------------------|
| USE_RETRY_DELAY | 1                    |
| RETRY_DELAY     | 0 or 8               |
| REV_INCLUDED    | 1                    |

Include the following record only if REV\_INCLUDED is set to '1':

|                     |        |
|---------------------|--------|
| REV_DTX_DURATION    | 4      |
| EXPL_REV_START_TIME | 1      |
| REV_START_TIME      | 0 or 6 |
| USE_REV_DURATION    | 1      |
| REV_DURATION        | 0 or 8 |
| USE_REV_HDM_SEQ     | 1      |
| REV_LINKED_HDM_SEQ  | 0 or 2 |
| NUM_REV_CODES       | 3      |
| USE_T_ADD_ABORT     | 1      |
| USE_SCRM_SEQ_NUM    | 1      |
| SCRM_SEQ_NUM        | 0 or 4 |
| REV_PARMS_INCLUDED  | 1      |
| T_MULCHAN           | 0 or 3 |
| BEGIN_PREAMBLE      | 0 or 3 |
| RESUME_PREAMBLE     | 0 or 3 |

|              |   |
|--------------|---|
| FOR_INCLUDED | 1 |
|--------------|---|

4

(continues on next page)

1

| Field | Length (bits) |
|-------|---------------|
|-------|---------------|

Include the following record only if FOR\_INCLUDED is set to '1':

|                     |                        |
|---------------------|------------------------|
| FOR_SUP_CONFIG      | 2                      |
| EXPL_FOR_START_TIME | <a href="#">0 or 1</a> |
| FOR_START_TIME      | 0 or 6                 |
| USE_FOR_DURATION    | 1                      |
| FOR_DURATION        | 0 or 8                 |
| USE_FOR_HDM_SEQ     | <a href="#">0 or 1</a> |
| FOR_LINKED_HDM_SEQ  | 0 or 2                 |

Include the following fields and records only if

FOR\_INCLUDED is set to '1' and

FOR\_SUP\_CONFIG is set to '10' or '11':

|                |   |
|----------------|---|
| NUM_SUP_PILOTS | 3 |
| NUM_FOR_SUP    | 3 |

Include NUM\_SUP\_PILOTS occurrences of the following

record only if FOR\_INCLUDED is set to '1' and

FOR\_SUP\_CONFIG is set to '10' or '11':

|                |   |
|----------------|---|
| PILOT_PN       | 9 |
| EXPL_CODE_CHAN | 1 |

If EXPL\_CODE\_CHAN is set to '1', for each PILOT\_PN

include NUM\_FOR\_SUP occurrences of the following field:

|               |        |
|---------------|--------|
| SUP_CODE_CHAN | 0 or 8 |
|---------------|--------|

If EXPL\_CODE\_CHAN is set to '0', the following field is

included:

|                |        |
|----------------|--------|
| BASE_CODE_CHAN | 0 or 8 |
|----------------|--------|

2

- 3 USE\_RETRY\_DELAY - Assign or Retry Indicator.  
 4 The base station shall set this field to '1' to indicate that this  
 5 message contains a retry delay time; otherwise, the base  
 6 station shall set this field to '0' to indicate that no  
 7 RETRY\_DELAY has been included.  
 8 RETRY\_DELAY - *Supplemental Channel Request Message* retry delay.

1                   If USE\_RETRY\_DELAY is set to ‘1’, the base station shall  
 2                   include and set this field to the duration of the delay interval  
 3                   in units of 320 ms (4 frames) from the next 80 ms system time  
 4                   boundary during which the mobile station is not permitted to  
 5                   send a *Supplemental Channel Request Message*. The base  
 6                   station shall set RETRY\_DELAY to ‘11111111’ to indicate that  
 7                   the mobile station is to refrain from sending *Supplemental*  
 8                   *Channel Request Messages* indefinitely.

- 9           REV\_INCLUDED    - Reverse Supplemental Code Channel configuration indicator.  
 10                  The base station shall set this field to ‘1’ to indicate that this  
 11                  message contains assignment information for Reverse  
 12                  Supplemental Code Channels; otherwise, the base station  
 13                  shall set this field to ‘0’.

14                  If REV\_INCLUDED is set to ‘1’, then the base station shall include the following fields,  
 15                  otherwise the base station shall omit the following fields:

- 16           REV\_DTX\_DURATION    - Reverse Discontinuous Transmission Duration.  
 17                  The base station shall set this field to the maximum duration  
 18                  of time in units of 20 ms that the mobile station is allowed to  
 19                  stop transmission on a Reverse Supplemental Code Channel  
 20                  within the reverse assignment duration. The base station  
 21                  shall set this field to ‘0000’ if the mobile station is to stop  
 22                  using a Reverse Supplemental Code Channel once it has  
 23                  stopped transmitting on that Reverse Supplemental [Code](#) |  
 24                  Channel. The base station shall set this field to ‘1111’ if the  
 25                  mobile station is allowed to resume transmission on a Reverse  
 26                  Supplemental Code Channel at any time within the reverse  
 27                  assignment duration.
- 28           EXPL\_REV\_START\_TIME - Explicit Reverse Supplemental Code Channel assignment start  
 29                  time indicator.  
 30                  This field indicates whether a start time for the specified  
 31                  Reverse Supplemental Channel Assignment is specified in this  
 32                  message. If a REV\_START\_TIME is specified in this message,  
 33                  the base station shall set this field to ‘1’; otherwise, the base  
 34                  station shall set this field to ‘0’. If EXPL\_REV\_START\_TIME is  
 35                  set to ‘1’, then the base station shall set USE\_REV\_HDM\_SEQ  
 36                  to ‘0’.
- 37           REV\_START\_TIME    - Explicit start time for Reverse Supplemental Code Channel  
 38                  assignment.  
 39                  If EXPL\_REV\_START\_TIME is included and set to ‘1’, the base  
 40                  station shall include and set this field to the System Time, in  
 41                  units of 80 ms (modulo 64), at which the mobile station may  
 42                  start transmitting on the specified number of Reverse  
 43                  Supplemental Code Channels. If EXPL\_REV\_START\_TIME is  
 44                  omitted or set to ‘0’, the base station shall omit this field.
- 45           USE\_REV\_DURATION    - Use reverse duration indicator.

The base station shall set this field to '1' if the REV\_DURATION field is included in the message; otherwise, the base station shall set this field to '0'. If the mobile station is granted permission to transmit on Reverse Supplemental Code Channels (i.e., NUM\_REV\_CODES is not '000) then a value of '0' for this field indicates an infinite Reverse Supplemental Code Channel assignment duration (i.e., the mobile station may transmit on Reverse Supplemental Code Channels until it receives a subsequent *Supplemental Channel Assignment Message* or a *General Handoff Direction Message* that specifies an updated REV\_DURATION or an updated value of NUM\_REV\_CODES).

- |                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| REV_DURATION        | <ul style="list-style-type: none"> <li>- Duration of Reverse Supplemental Code Channel assignment.<br/>The base station shall include this field only if the USE_REV_DURATION field is included and set to '1'. If this field is included, this field indicates the allocated duration, in units of 80 ms, during which the mobile station may transmit on Reverse Supplemental Code Channels.</li> </ul>                                                                                                      |
| USE_REV_HDM_SEQ     | <ul style="list-style-type: none"> <li>- Use Reverse <i>General Handoff Direction Message</i> sequence number indicator.<br/>The base station shall set this field to '1' to indicate that this Reverse Supplemental Code Channel assignment shall take effect at the same time as a corresponding <i>General Handoff Direction Message</i>; otherwise, the base station shall set this field to '0'. If USE_REV_HDM_SEQ is set to '1', then the base station shall set EXPL_REV_START_TIME to '0'.</li> </ul> |
| LINKED_HDM_SEQ      | <ul style="list-style-type: none"> <li>- Sequence number of the reverse linked <i>General Handoff Direction Message</i>.<br/>If USE_REV_HDM_SEQ is included and set to '1', then the base station shall set this field to the sequence number of the <i>General Handoff Direction Message</i> (HDM_SEQ) to which this Reverse Supplemental Code Channel assignment is linked.</li> </ul>                                                                                                                       |
| NUMBER_OF_REV_CODES | <ul style="list-style-type: none"> <li>- Number of Reverse Supplemental Code Channels.<br/>The base station shall set this field to the number of Reverse Supplemental Code Channels that are assigned to the mobile station.</li> </ul>                                                                                                                                                                                                                                                                       |
| REVERSE_T_ADD_ABORT | <ul style="list-style-type: none"> <li>- Reverse use T_ADD abort indicator.<br/>The base station shall set this field to '1' to indicate that the mobile station is to utilize the T_ADD Reverse Supplemental Code Channel abort feature for this reverse assignment; otherwise, the base station shall set this field to '0'.</li> </ul>                                                                                                                                                                      |
| SCRM_SEQ_NUM        | <ul style="list-style-type: none"> <li>- Use <i>Supplemental Channel Request Message</i> sequence number indicator.<br/>The base station shall set this field to '1' if the SCRM_SEQ_NUM field is included in this message; otherwise, the base station shall set this field to '0'.</li> </ul>                                                                                                                                                                                                                |
| SCRM_SEQ_NUM        | <ul style="list-style-type: none"> <li>- <i>Supplemental Channel Request Message</i> sequence number.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                               |

- 1                   If USE\_SCRM\_SEQ\_NUM is set to ‘1’, the base station shall  
 2                   set this field to the sequence number corresponding to the  
 3                   SCRM\_SEQ\_NUM field in a *Supplemental Channel Request*  
 4                   *Message* to which the mobile station is to match this message;  
 5                   otherwise, the base station shall omit this field.
- 6   REV\_PARMS\_INCLUDED - Reverse additional parameters included flag.  
 7                   The base station shall set this field to ‘1’ if the following three  
 8                   fields (T\_MULCHAN, BEGIN\_PREAMBLE, and  
 9                   RESUME\_PREAMBLE) are included in this message;  
 10                  otherwise, the base station shall set this field to ‘0’.
- 11   T\_MULCHAN - *Supplemental Channel Request Message* pilot strength  
 12                  reporting offset.  
 13                  If REV\_PARMS\_INCLUDED is set to ‘1’, the base station shall  
 14                  include this field and set this field to the threshold offset that  
 15                  the mobile station is to use when reporting neighbor pilot  
 16                  strength measurements in a *Supplemental Channel Request*  
 17                  *Message*. The mobile station is to interpret this field as an  
 18                  offset to T\_ADD ranging from 0.5 dB (corresponding to  
 19                  T\_MULCHAN = ‘000’) to 4.0 dB (corresponding to T\_MULCHAN  
 20                  = ‘111’) in 0.5 dB increments.
- 21   BEGIN\_PREAMBLE - Number of preamble frames on Reverse Supplemental Code  
 22                  Channels at the beginning of transmission on Reverse  
 23                  Supplemental Code Channel.  
 24                  If REV\_PARMS\_INCLUDED is set to ‘1’, the base station shall  
 25                  include this field and set this field to the number of Reverse  
 26                  Supplemental Code Channel preamble frames that the mobile  
 27                  station is to send when beginning transmission on Reverse  
 28                  Supplemental Code Channels.
- 29   RESUME\_PREAMBLE - Number of preamble frames on Reverse Supplemental Code  
 30                  Channels at the resumption of transmission.  
 31                  If REV\_PARMS\_INCLUDED is set to ‘1’, the base station shall  
 32                  include this field and set this field to the number of Reverse  
 33                  Supplemental Code Channel preamble frames that the mobile  
 34                  station is to send when resuming transmission on a Reverse  
 35                  Supplemental Code Channel following an autonomous  
 36                  suspension of transmission on an allocated Supplemental  
 37                  Code Channel.
- 38   FORINCLUDED - Forward Supplemental Code Channel configuration indicator.  
 39                  The base station shall set this field to ‘1’ to indicate that this  
 40                  message contains assignment information for Forward  
 41                  Supplemental Code Channels; otherwise, the base station  
 42                  shall set this field to ‘0’.  
 43                  If FORINCLUDED is set to ‘1’, then the base station shall  
 44                  include the remaining fields in this message, otherwise the  
 45                  base station shall omit all of the following except for  
 46                  RESERVED.
- 47   FOR\_SUP\_CONFIG - Forward Supplemental Code Channel configuration indicator.

1           The base station shall set this field to '00' to indicate that the  
 2           mobile station is to stop processing the Forward Supplemental  
 3           Code Channels at the implicit action time of the message.

4           The base station shall set this field to '01' to indicate that the  
 5           mobile station is to start processing the Forward  
 6           Supplemental Code Channels in the Code Channel List at the  
 7           implicit, explicit, or linked start time specified by this message  
 8           (see 2.6.6.2.5.1).

9           The base station shall set this field to '10' if the Forward  
 10          Supplemental Code Channels are specified in the message and  
 11          the mobile station is to update its Code Channel List and stop  
 12          processing the Forward Supplemental Code Channels at the  
 13          implicit action time of the message.

14          The base station shall set this field to '11' if the Forward  
 15          Supplemental Code Channels are specified in the message and  
 16          the mobile station is to start processing the Forward  
 17          Supplemental Code Channels at the implicit, explicit, or  
 18          linked start time specified by this message (see 2.6.6.2.5.1).

19          EXPL\_FOR\_START\_TIME - Explicit forward start time indicator.

20           This field indicates whether an explicit Forward Supplemental  
 21           Code Channel start time is specified in this message.

22          The base station shall include this field only if  
 23          FOR\_SUP\_CONFIG is set to '01' or '11'. If a FOR\_START\_TIME  
 24          is specified in this message, the base station shall set this  
 25          field to '1'; otherwise, the base station shall set this field to '0'.  
 26          If EXPL\_FOR\_START\_TIME is set to '1', then the base station  
 27          shall set USE\_FOR\_HDM\_SEQ to '0'.

28          The following field is included only if EXPL\_FOR\_START\_TIME is included and set to '1':

29          FOR\_START\_TIME - Start time of the Forward Supplemental Code Channel  
 30           assignment.

31           The base station shall include this field only if  
 32          FOR\_SUP\_CONFIG is set to '01' or '11'. If the  
 33          EXPL\_FOR\_START\_TIME field is set to '1', the base station  
 34          shall set this field to the System Time, in units of 80 ms  
 35          (modulo 64), at which the mobile station is to start processing  
 36          the Forward Supplemental Code Channels. If  
 37          EXPL\_FOR\_START\_TIME is set to '0' the base station shall  
 38          omit this field.

39          USE\_FOR\_DURATION - Use forward duration indicator.

40           The base station shall set this field to '1' if FOR\_DURATION is  
 41          included in the message; otherwise, the base station shall set  
 42          this field to '0'.

If FOR\_SUP\_CONFIG is set to ‘01’ or ‘11’, then the base station may set this field to ‘0’ to indicate that the mobile station is to be assigned an infinite Forward Supplemental Code Channel assignment duration (i.e., the mobile station is to continue processing Forward Supplemental Code Channels until it receives a subsequent *Supplemental Channel Assignment Message* or a *General Handoff Direction Message* that specifies an updated FOR\_DURATION). Otherwise, the base station may set this field to ‘1’ to indicate that the mobile station is to be given a Forward Supplemental Code Channel assignment for the duration specified by the FOR\_DURATION field.

If FOR\_SUP\_CONFIG is set to ‘00’ or ‘10’, then the base station shall set USE\_FOR\_DURATION to ‘0’.

- |    |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|----|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 15 | FOR_DURATION       | - Duration of Forward Supplemental Code Channel assignment.<br><br>The base station shall include this field only if USE_FOR_DURATION is included and set to ‘1’. If this field is included, this field indicates allocated duration, in units of 80 ms, during which the mobile station is to process the Forward Supplemental Code Channels.                                                                                                                                                                                                                                                                                                                 |
| 21 | USE_FOR_HDM_SEQ    | - Use Forward <i>General Handoff Direction Message</i> sequence number indicator.<br><br>This field indicates whether processing of the Forward Supplemental Code Channels shall take effect at the same time as a corresponding <i>General Handoff Direction Message</i> .<br><br>The base station shall include this field only if FOR_SUP_CONFIG is equal to ‘01’ or ‘11’. If this message is linked with a <i>General Handoff Direction Message</i> , the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’. If USE_FOR_HDM_SEQ is set to ‘1’, then the base station shall set EXPL_FOR_START_TIME to ‘0’. |
| 32 | FOR_LINKED_HDM_SEQ | - Sequence number of the <i>General Handoff Direction Message</i> .<br><br>If the USE_FOR_HDM_SEQ field is included and set to ‘1’, the base station shall set this field to the sequence number of the <i>General Handoff Direction Message</i> (HDM_SEQ) to which this Forward Supplemental Code Channel assignment is linked; otherwise, if USE_FOR_HDM_SEQ is not included or is set to ‘0’, then base station shall omit this field.                                                                                                                                                                                                                      |
| 39 | NUM_SUP_PILOTS     | - Number of pilots in the Active Set which have at least one associated Supplemental Code Channel.<br><br>If FOR_SUP_CONFIG is included and is set to ‘10’ or ‘11’, the base station shall include this field and shall set this field to the number of pilots for which there is at least one associated Supplemental Code Channel. This field shall not be included if FOR_SUP_CONFIG is omitted or is set to ‘01’ or ‘00’.                                                                                                                                                                                                                                  |
| 46 | NUM_FOR_SUP        | - Number of Forward Supplemental Code Channels.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

If FOR\_SUP\_CONFIG is included and is set to ‘10’ or ‘11’, the base station shall include this field and shall set this field to the number of Forward Supplemental Code Channels assigned to the mobile station. NUM\_FOR\_SUP shall not exceed the maximum number of Forward Supplemental Code Channels for the negotiated multiplex option. This field shall not be included if FOR\_SUP\_CONFIG is omitted or is set to ‘01’ or ‘00’.

If FOR\_SUP\_CONFIG is included and is set to ‘10’ or ‘11’, the base station shall include NUM\_SUP\_PILOTS occurrences of the following record, one for each pilot for which there is at least one associated Supplemental Code Channel:

PILOT\_PN - Pilot PN sequence offset index.

The base station shall set this field to the pilot PN sequence offset for this pilot in units of 64 PN chips.

EXPL\_CODE\_CHAN - Explicit code channel indicator

The base station shall set this field to ‘1’ to indicate explicit assignment of each Forward Supplemental Code Channel. The base station shall set this field to ‘0’ if the mobile station is to use NUM\_FOR\_SUP successive code channels beginning with index BASE\_CODE\_CHAN (i.e., BASE\_CODE\_CHAN through BASE\_CODE\_CHAN + NUM\_FOR\_SUP – 1). In both cases (i.e., the explicit code channel list format and range format), the order of the code channel indices is the same for all the pilots specified in this message (i.e., the  $i^{th}$  code channel index in the list for each pilot PN sequence offset indicates the appropriate code channel to be used for the  $i^{th}$  Forward Supplemental Code Channel).

If EXPL\_CODE\_CHAN is set to ‘1’, then the base station shall include NUM\_FOR\_SUP occurrences of the following field, one for each pilot which has been included:

SUP\_CODE\_CHAN - Supplemental Code Channel index.

The base station shall set this field to the code channel index (see [2]) in the range 1 to 63 inclusive of the Supplemental Code Channel associated with this pilot.

If EXPL\_CODE\_CHAN is set to ‘0’ then the base station shall include the following field:

BASE\_CODE\_CHAN - Base code channel index.

If EXPL\_CODE\_CHAN is equal to ‘0’ the base station shall include this field and set it to the base code channel index (see [2]) in the range of 1 to (63 – NUM\_FOR\_SUP + 1), inclusive, that the mobile station is to use as the first Forward Supplemental Code Channel associated with this pilot. The mobile station is to use NUM\_FOR\_SUP successive code channels beginning with index BASE\_CODE\_CHAN (i.e., BASE\_CODE\_CHAN through BASE\_CODE\_CHAN + NUM\_FOR\_SUP – 1) for the Forward Supplemental Code Channels associated with this pilot.

1           The base station shall not include this field if  
2           EXPL\_CODE\_CHAN is equal to '1' or if EXPL\_CODE\_CHAN is  
3           not included.

## 1 3.7.3.3.2.25 Power Control Message

2 MSG\_TAG: PCNM

3

| <b>Field</b>       | <b>Length (bits)</b> |
|--------------------|----------------------|
| PWR_CNTL_STEP      | 3                    |
| USE_TIME           | 1                    |
| ACTION_TIME        | 0 or 6               |
| FPC_INCL           | 1                    |
| FPC_MODE           | 0 or 3               |
| FPC_PRI_CHAN       | 0 or 1               |
| FPC_OLPC_FCH_INCL  | 0 or 1               |
| FPC_FCH_FER        | 0 or 5               |
| FPC_FCH_MIN_SETPT  | 0 or 8               |
| FPC_FCH_MAX_SETPT  | 0 or 8               |
| FPC_OLPC_DCCH_INCL | 0 or 1               |
| FPC_DCCH_FER       | 0 or 5               |
| FPC_DCCH_MIN_SETPT | 0 or 8               |
| FPC_DCCH_MAX_SETPT | 0 or 8               |
| FPC_SEC_CHAN       | 0 or 1               |
| NUM_SUP            | 0 or 2               |

Include NUM\_SUP occurrence of the following four fields:

|                   |        |
|-------------------|--------|
| SCH_ID            | 1      |
| FPC_SCH_FER       | 5      |
| FPC_SCH_MIN_SETPT | 8      |
| FPC_SCH_MAX_SETPT | 8      |
| FPC_THRESH_INCL   | 0 or 1 |

4

(continues on next page)

1

| <b>Field</b>         | <b>Length (bits)</b> |
|----------------------|----------------------|
| FPC_SETPT_THRESH     | 0 or 8               |
| FPC_THRESH_SCH_INCL  | 0 or 1               |
| FPC_SETPT_THRESH_SCH | 0 or 8               |
| RPC_INCL             | 1                    |
| RPC_NUM_REC          | 0 or 2               |

If RPC\_INCL is set to '1', RPC\_NUM\_REC occurrences of the following record:

|                      |                   |
|----------------------|-------------------|
| RPC_ADJ_REC_TYPE     | 4                 |
| RPC_ADJ_REC_LEN      | 5                 |
| Type-specific fields | 8×RPC_ADJ_REC_LEN |

2

3

- PWR\_CNTL\_STEP - Power control step size

4

5

6

7

8

The base station shall set this field to the closed loop power control step size parameter shown in Table 3.7.3.3.2.25-1 corresponding to the power control step size that the mobile station is to use for closed loop power control.

9

10

**Table 3.7.3.3.2.25-1. Closed Loop Power Control Step Size**

| <b>PWR_CNTL_STEP<br/>(binary)</b>            | <b>Power Control Step Size<br/>(dB nominal)</b> |
|----------------------------------------------|-------------------------------------------------|
| 000                                          | 1                                               |
| 001                                          | 0.5                                             |
| 010                                          | 0.25                                            |
| All other PWR_CNTL_STEP values are reserved. |                                                 |

11

12

13

- USE\_TIME - Use action time indicator.

This field indicates whether an ACTION\_TIME is specified in this message.

14

15

16

If an ACTION\_TIME is specified in this message, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.

17

18

19

20

21

- ACTION\_TIME - Action time.

If the USE\_TIME field is set to '1', the base station shall set this field to the System Time, in units of 80 ms (modulo 64), at which the message is to take effect. If the USE\_TIME field is set to '0' the base station shall omit this field.

- 1           FPC\_INCL    - Forward Link Power Control parameter included indicator.  
 2                         If the forward power control related information is included in  
 3                         this message, the base station shall set this field to '1';  
 4                         otherwise, the base station shall set this field to '0'.  
 5           FPC\_MODE    - Forward Power Control Operation Mode Indicator  
 6                         If FPC\_INCL is set to '0' the base station shall omit this field;  
 7                         otherwise, the base station shall set this field as follows:  
 8                         The base station shall set the value to the forward power  
 9                         control operation mode (see [2]).  
 10          FPC\_PRI\_CHAN - Power Control Subchannel indicator.  
 11                         If FPC\_INCL is set to '0' the base station shall omit this field;  
 12                         otherwise, the base station shall set this field as follows:  
 13                         The base station shall set this field to '0' if the mobile station  
 14                         is to perform the primary inner loop estimation on the  
 15                         received Forward Fundamental Channel and the base station  
 16                         is to multiplex the Power Control Subchannel on the Forward  
 17                         Fundamental Channel. The base station shall set this field to  
 18                         '1' if the mobile station is to perform the primary inner loop  
 19                         estimation on the received Forward Dedicated Control  
 20                         Channel and the base station is to multiplex the Power  
 21                         Control Subchannel on the Forward Dedicated Control  
 22                         Channel.  
 23                         If only the Fundamental Channel is assigned, the base station  
 24                         shall set this field to '0'. If only the Dedicated Control  
 25                         Channel is assigned, the base station shall set this field to '1'.  
 26          FPC\_OLPC\_FCH\_INCL - Fundamental Channel Outer Loop Power Control parameter  
 27                         included indicator.  
 28                         If FPC\_INCL is set to '0' the base station shall omit this field;  
 29                         otherwise, the base station shall set this field as follows:  
 30                         If the forward link fundamental channel outer loop power  
 31                         control parameters are included in this message, the base  
 32                         station shall set this field to '1'; otherwise, the base station  
 33                         shall set this field to '0'.  
 34          FPC\_FCH\_FER   - Fundamental channel target Frame Error Rate.  
 35                         If FPC\_OLPC\_FCH\_INCL is included and set to '1', the base  
 36                         station shall set this field to the target Frame Error Rate on  
 37                         the Forward Fundamental Channel, as specified in Table  
 38                         3.7.3.3.2.25-2; otherwise, the base station shall omit this  
 39                         field.

**Table 3.7.3.3.2.25-2. Target Frame Error Rate**

| <b>FER<br/>(Binary)</b> | <b>Frame Error Rate</b>      |
|-------------------------|------------------------------|
| 00000                   | 0.2%                         |
| 00001-10100             | 0.5% -10% (in units of 0.5%) |
| 10101-11001             | 11% - 15% (in units of 1.0%) |
| 11010-11110             | 18% - 30% (in units of 3.0%) |
| 11111                   | Reserved                     |

- 1 FPC\_FCH\_MIN\_SETPT - Minimum Fundamental Channel Outer Loop Eb/Nt setpoint  
 2 If FPC\_OLPC\_FCH\_INCL is included and set to '1', the base station shall set this field to minimum Fundamental Channel Outer Loop Eb/Nt setpoint, in units of 0.125 dB; otherwise, the base station shall omit this field.  
 3  
 4  
 5  
 6  
 7 The base station shall set this field to '11111111', when it  
 8 directs the mobile station to set this Eb/No setpoint to the  
 9 current setpoint used at the mobile station on this channel.
- 10 FPC\_FCH\_MAX\_SETPT - Maximum Fundamental Channel Outer Loop Eb/Nt setpoint  
 11 If FPC\_OLPC\_FCH\_INCL is included and set to '1', the base station shall set this field to maximum Fundamental Channel Outer Loop Eb/Nt setpoint, in units of 0.125 dB; otherwise, the base station shall omit this field.  
 12  
 13  
 14  
 15 The base station shall set this field to '11111111', when it  
 16 directs the mobile station to set this Eb/No setpoint to the  
 17 current setpoint used at the mobile station on this channel.
- 18 FPC\_OLPC\_DCCH\_INCL - Dedicated Control Channel Outer Loop Power Control  
 19 parameter included indicator.  
 20 If FPC\_INCL is set to '0' the base station shall omit this field;  
 21 otherwise, the base station shall set this field as follows:  
 22 If the forward link Dedicated Control Channel outer loop  
 23 power control parameters are included in this message, the  
 24 base station shall set this field to '1'; otherwise, the base  
 25 station shall set this field to '0'.  
 26 FPC\_DCCH\_FER - Dedicated Control Channel target Frame Error Rate.  
 27 If FPC\_OLPC\_DCCH\_INCL is included and set to '1', the base  
 28 station shall set this field to the target Frame Error Rate on  
 29 the Forward Dedicated Control Channel, as specified in Table  
 30 3.7.3.3.2.25-2; otherwise, the base station shall omit this  
 31 field.  
 32 FPC\_DCCH\_MIN\_SETPT - Minimum Dedicated Control Channel Outer Loop Eb/Nt  
 33 setpoint.

If FPC\_OLPC\_DCCH\_INCL is included and set to '1', the base station shall set this field to minimum Dedicated Control Channel Outer Loop Eb/Nt setpoint, in units of 0.125 dB; otherwise, the base station shall omit this field.

The base station shall set this field to '11111111', when it directs the mobile station to set this Eb/No setpoint to the current setpoint used at the mobile station on this channel.

FPC\_DCCH\_MAX\_SETPT - Maximum Dedicated Control Channel Outer Loop Eb/Nt setpoint.

If FPC\_OLPC\_DCCH\_INCL is included and set to '1', the base station shall set this field to maximum Dedicated Control Channel Outer Loop Eb/Nt setpoint, in units of 0.125 dB; otherwise, the base station shall omit this field.

The base station shall set this field to '11111111', when it directs the mobile station to set this Eb/No setpoint to the current setpoint used at the mobile station on this channel.

FPC\_SEC\_CHAN - Master Supplemental channel index.

If FPC\_INCL is set to '1' and FPC\_MODE is set to '001', '010', '101', or '110', the base station shall set this field to the master Supplemental Channel index; otherwise, the base station shall omit this field.

NUM\_SUP - Number of Supplemental Channels.

If FPC\_INCL is set to '0' the base station shall omit this field; otherwise, the base station shall set this field to the total number of the Supplemental Channels.

The base station shall include NUM\_SUP occurrences of the following record:

SCH\_ID - Supplemental channel index.

The base station shall set this field to the Supplemental Channel index.

FPC\_SCH\_FER - Supplemental channel target Frame Error Rate.

The base station shall set this field to the target Frame Error Rate on the Supplemental Channel, as specified in Table 3.7.3.3.2.25-2.

FPC\_MIN\_SCH\_SETPT - Minimum Supplemental Channel outer loop Eb/Nt setpoint.

The base station shall set this field to minimum Supplemental Channel Outer Loop Eb/Nt setpoint, in units of 0.125 dB.

The base station shall set this field to '11111111', when it directs the mobile station to set this Eb/No setpoint to the current setpoint used at the mobile station on this channel.

FPC\_MAX\_SCH\_SETPT - Maximum Supplemental Channel outer loop Eb/Nt setpoint.

The base station shall set this field to maximum Supplemental Channel Outer Loop Eb/Nt setpoint, in units of 0.125 dB.

The base station shall set this field to '11111111', when it directs the mobile station to set this Eb/No setpoint to the current setpoint used at the mobile station on this channel.

- FPC\_THRESH\_INCL - Setpoint Report Threshold included indicator.  
If FPC\_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:  
If FPC\_SETPT\_THRESH is included in this message, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.

10 FPC\_SETPT\_THRESH - Setpoint Report Threshold.

- If FPC\_THRESH\_INCL is set to '1', the base station shall set the value to FPC\_SETPT\_THRESH (in units of 0.125 dB) above which the outer loop report message will be sent by the mobile station; otherwise, the base station shall omit this field.

15 FPC\_THRESH\_SCH\_INCL - SCH Setpoint Report Threshold included indicator.

- If FPC\_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

18 If FPC\_SETPT\_THRESH\_SCH is included in this message, the  
19 base station shall set this field to '1'; otherwise, the base  
20 station shall set this field to '0'.

FPC\_SETPT-

## \_THRESH\_SCH

- SCH Setpoint Report Threshold.

If FPC\_THRESH\_SCH\_INCL is set to '1', the base station shall set the value to FPC\_SETPT\_THRESH\_SCH (in units of 0.125 dB) above which the outer loop report message will be sent by the mobile station; otherwise, the base station shall omit this field.

28           RPC INCL - Reverse Link Power Control parameter included indicator.

- If the reverse power control related information is included in this message, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.

<sup>32</sup> RPC NUM REC - Number of records for Reverse Link Power Control

- If RPC INCL is set to '0' the base station shall omit

otherwise, the base station shall set this field to one less than the number of records included in this message.

36 If `RPC_NUM_REC` is included in this message, the base station shall include  
37 `RPC_NUM_REC` occurrences of the following record:

38       RPC\_ADJ\_REC\_TYPE - Reverse Link Power Control adjustment record type.

The base station shall set this field to the value shown in Table 3.7.2.3.2.25-3 corresponding to the type of adjustment that is to be used.

1  
2      **Table 3.7.3.3.2.25-3. RPC\_ADJ\_REC\_TYPE and**  
      **RPC\_ADJ\_REC\_LEN fields**

| <b>Description</b>                         | <b>RPC_ADJ_REC_TYPE<br/>(binary)</b> | <b>RPC_ADJ_REC_LEN</b> |
|--------------------------------------------|--------------------------------------|------------------------|
| Reverse Channel Adjustment Gain            | 0000                                 | 2-5                    |
| Attribute Adjustment Gain for Basic Rates  | 0001                                 | 2-26                   |
| Attribute Adjustment Gain for Higher Rates | 0010                                 | 2-31                   |
| All other values are reserved.             |                                      |                        |

- 3
- 4     RPC\_ADJ\_REC\_LEN    -    Reverse Link Power Control adjustment record length.  
5                          The base station shall set this field to the number of octets in  
6                          the type-specific fields of this adjustment record as given in  
7                          Table 3.7.2.3.2.25-3.
- 8     Type-specific fields    -    Reverse Link Power Control adjustment record type-specific  
9                          fields.  
10                          The base station shall include type-specific fields based on the  
11                          RPC\_ADJ\_REC\_TYPE of this adjustment record, as specified  
12                          as below.

1 If RPC\_ADJ\_REC\_TYPE is equal to '0000', the base station shall set type-specific fields as  
 2 specified in Table 3.7.2.3.2.25-4.

3 **Table 3.7.2.3.2.25-4. Type Specific Fields for**  
 4 **RECORD\_TYPE = '0000'**

| Fields             | Length (Bits) |
|--------------------|---------------|
| FCH_INCL           | 1             |
| FCH_CHAN_ADJ_GAIN  | 0 or 8        |
| DCCH_INCL          | 1             |
| DCCH_CHAN_ADJ_GAIN | 0 or 8        |
| SCH0_INCL          | 1             |
| SCH0_CHAN_ADJ_GAIN | 0 or 8        |
| SCH1_INCL          | 1             |
| SCH1_CHAN_ADJ_GAIN | 0 or 8        |

|          |                 |
|----------|-----------------|
| RESERVED | 0-7 (if needed) |
|----------|-----------------|

- 5
- 6
- 7 FCH\_INCL - FCH channel adjustment gain included indicator.  
 8 If FCH\_CHAN\_ADJ\_GAIN is included in this message, the base  
 9 station shall set this field to '1'; otherwise, the base station  
 10 shall set this field to '0'.
- 11 FCH\_CHAN\_ADJ\_GAIN - Channel adjustment gain for Reverse Fundamental Channel.  
 12 If FCH\_INCL is set to '0', the base station shall omit this field;  
 13 otherwise, the base station shall set each field to the value of  
 14 the gain adjustment that the mobile station is to make for the  
 15 Reverse Fundamental Channel. The base station shall set  
 16 this field to the correction factor expressed as a two's  
 17 complement value in units of 0.125 dB. The base station  
 18 shall set the value in the range from -48 to 48 inclusive.
- 19 DCCH\_INCL - DCCH channel adjustment gain included indicator.  
 20 If DCCH\_CHAN\_ADJ\_GAIN is included in this message, the base  
 21 station shall set this field to '1'; otherwise, the base  
 22 station shall set this field to '0'.
- 23 DCCH\_CHAN\_ADJ\_GAIN - Channel adjustment gain for the Reverse Dedicated Control  
 24 Channel.

If DCCH\_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set each field to the value of the gain adjustment that the mobile station is to make for the Reverse Dedicated Control Channel. The base station shall set this field to the correction factor expressed as a two's complement value in units of 0.125 dB. The base station shall set the value in the range from -48 to 48 inclusive.

SCH0\_INCL - SCH0 channel adjustment gain included indicator.

If SCH0\_CHAN\_ADJ\_GAIN is included in this message, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.

SCH0\_CHAN\_ADJ\_GAIN - Channel adjustment gain for Reverse Supplemental Channel 0.

If SCH0\_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set each field to the value of the gain adjustment that the mobile station is to make for the Reverse Supplemental Channel 0. The base station shall set this field to the correction factor expressed as a two's complement value in units of 0.125 dB. The base station shall set the value in the range from -48 to 48 inclusive.

SCH1\_INCL - SCH1 channel adjustment gain included indicator.

If SCH1\_CHAN\_ADJ\_GAIN is included in this message, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.

SCH1\_CHAN\_ADJ\_GAIN - Channel adjustment gain for Reverse Supplemental Channel 1.

If SCH1\_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set each field to the value of the gain adjustment that the mobile station is to make for the Supplemental Channel 1. The base station shall set this field to the correction factor expressed as a two's complement value in units of 0.125 dB. The base station shall set the value in the range from -48 to 48 inclusive.

RESERVED - Reserved bits.

The base station shall add reserved bits as needed in order to make the length of the entire record equal to an integer number of octets. The base station shall set these bits to '0'.

If RPC\_ADJ\_REC\_TYPE is equal to '0001', the base station shall set type-specific fields as specified in Table 3.7.2.3.2.25-5.

1  
2**Table 3.7.2.3.2.25-5. Type Specific Fields for  
RECORD\_TYPE = '0001'**

| <b>Fields</b>              | <b>Length (Bits)</b> |
|----------------------------|----------------------|
| RL_ATT_ADJ_GAIN_TYPE       | 1                    |
| RC3_RC5_20MS_INCL          | 1                    |
| RL_ATT_ADJ_GAIN_1500       | 0 or 8               |
| RL_ATT_ADJ_GAIN_2700       | 0 or 8               |
| RL_ATT_ADJ_GAIN_4800       | 0 or 8               |
| RL_ATT_ADJ_GAIN_9600       | 0 or 8               |
| RC4_RC6_20MS_INCL          | 1                    |
| RL_ATT_ADJ_GAIN_1800       | 0 or 8               |
| RL_ATT_ADJ_GAIN_3600       | 0 or 8               |
| RL_ATT_ADJ_GAIN_7200       | 0 or 8               |
| RL_ATT_ADJ_GAIN_14400      | 0 or 8               |
| 5MS_INCL                   | 1                    |
| RL_ATT_ADJ_GAIN_9600_5MS   | 0 or 8               |
| RC3_RC5_40MS_INCL          | 1                    |
| RL_ATT_ADJ_GAIN_1350_40MS  | 0 or 8               |
| RL_ATT_ADJ_GAIN_2400_40MS  | 0 or 8               |
| RL_ATT_ADJ_GAIN_4800_40MS  | 0 or 8               |
| RL_ATT_ADJ_GAIN_9600_40MS  | 0 or 8               |
| RC4_RC6_40MS_INCL          | 1                    |
| RL_ATT_ADJ_GAIN_1800_40MS  | 0 or 8               |
| RL_ATT_ADJ_GAIN_3600_40MS  | 0 or 8               |
| RL_ATT_ADJ_GAIN_7200_40MS  | 0 or 8               |
| RL_ATT_ADJ_GAIN_14400_40MS | 0 or 8               |
| RC3_RC5_80MS_INCL          | 1                    |
| RL_ATT_ADJ_GAIN_1200_80MS  | 0 or 8               |
| RL_ATT_ADJ_GAIN_2400_80MS  | 0 or 8               |
| RL_ATT_ADJ_GAIN_4800_80MS  | 0 or 8               |

3  
4

(continues on next page)

| <b>Fields</b>              | <b>Length (Bits)</b> |
|----------------------------|----------------------|
| RL_ATT_ADJ_GAIN_9600_80MS  | 0 or 8               |
| RC4_RC6_80MS_INCL          | 1                    |
| RL_ATT_ADJ_GAIN_1800_80MS  | 0 or 8               |
| RL_ATT_ADJ_GAIN_3600_80MS  | 0 or 8               |
| RL_ATT_ADJ_GAIN_7200_80MS  | 0 or 8               |
| RL_ATT_ADJ_GAIN_14400_80MS | 0 or 8               |

|   |          |                 |
|---|----------|-----------------|
| 1 | RESERVED | 0-7 (if needed) |
|---|----------|-----------------|

- 2
- 3        RL\_ATT\_ADJ-
- 4        \_GAIN\_TYPE     - Reverse Link Attribute Adjustment Gain value type indicator.
- 5              If the following fields are set to the nominal attribute gain
- 6              adjustment values that the mobile station is to use for the
- 7              transmission attributes (relative to Nominal\_Attribute\_Gain
- 8              specified in Table 2.1.2.3.3.2-1 of [2]), the base station shall
- 9              set this field to '0'. If the following fields are set to the pilot
- 10             reference level adjustment values that the mobile station is to
- 11             use for the transmission attributes (relative to Pilot\_Reference\_Level specified in Table 2.1.2.3.3.2-1 of [2]),
- 12             the base station shall set this field to '1'.
- 13
- 14        RC3\_RC5-
- 15        \_20MS\_INCL    - Reverse Link Attribute Adjustment Gain for Radio
- 16             Configuration 3 or 5 of 20 ms frame included indicator.
- 17              If Reverse Link Attribute adjustment Gain for Radio
- 18              Configuration 3 or 5 of 20 ms frame is included in this
- 19              message, the base station shall set this field to '1'; otherwise,
- 20              the base station shall set this field to '0'.
- 21        RL\_ATT\_ADJ\_GAIN\_1500 - Reverse Link Attribute Adjustment Gain for the transmission
- 22             rate 1500 bits/s.
- 23              If RC3\_RC5\_20MS\_INCL is set to '0', the base station shall
- 24              omit this field.
- 25              If RC3\_RC5\_20MS\_INCL is set to '1' and
- 26              RL\_ATT\_ADJ\_GAIN\_TYPE is set to '0', the base station shall
- 27              set this field to the value of the nominal attribute gain
- 28              adjustment that the mobile station is to make for the
- 29              transmission attributes with transmission rate 1500 bits/s,
- 30              convolutional code and 20ms frame. The base station shall
- 31              set the value in the range from -48 to 48 inclusive.

1       If RC3\_RC5\_20MS\_INCL is set to ‘1’ and  
 2       RL\_ATT\_ADJ\_GAIN\_TYPE is set to ‘1’, the base station shall  
 3       set this field to the value of the pilot reference level  
 4       adjustment that the mobile station is to make for the  
 5       transmission attributes with transmission rate 1500 bits/s,  
 6       convolutional code and 20ms frame. ~~The base station shall~~  
 7       ~~set the value in the range from 0 to 63 inclusive.~~

8           The base station shall set this field to the correction factor  
 9           expressed as a two’s complement value in units of 0.125 dB.

10      RL\_ATT\_ADJ\_GAIN\_2700 -  
 11       Reverse Link Attribute Adjustment Gain for the transmission  
          rate 2700 bits/s.

12       If RC3\_RC5\_20MS\_INCL is set to ‘0’, the base station shall  
 13       omit this field.

14       If RC3\_RC5\_20MS\_INCL is set to ‘1’ and  
 15       RL\_ATT\_ADJ\_GAIN\_TYPE is set to ‘0’, the base station shall  
 16       set this field to the value of the nominal attribute gain  
 17       adjustment that the mobile station is to make for the  
 18       transmission attributes with transmission rate 2700 bits/s,  
 19       convolutional code and 20ms frame. The base station shall  
 20       set the value in the range from –48 to 48 inclusive.

21       If RC3\_RC5\_20MS\_INCL is set to ‘1’ and  
 22       RL\_ATT\_ADJ\_GAIN\_TYPE is set to ‘1’, the base station shall  
 23       set this field to the value of the pilot reference level  
 24       adjustment that the mobile station is to make for the  
 25       transmission attributes with transmission rate 2700 bits/s,  
 26       convolutional code and 20ms frame. ~~The base station shall~~  
 27       ~~set the value in the range from 0 to 63 inclusive.~~

28           The base station shall set this field to the correction factor  
 29           expressed as a two’s complement value in units of 0.125 dB.

30      RL\_ATT\_ADJ\_GAIN\_4800 -  
 31       Reverse Link Attribute Gain Adjustment for the transmission  
          rate 4800 bits/s.

32       If RC3\_RC5\_20MS\_INCL is set to ‘0’, the base station shall  
 33       omit this field.

34       If RC3\_RC5\_20MS\_INCL is set to ‘1’ and  
 35       RL\_ATT\_ADJ\_GAIN\_TYPE is set to ‘0’, the base station shall  
 36       set this field to the value of the nominal attribute gain  
 37       adjustment that the mobile station is to make for the  
 38       transmission attributes with transmission rate 4800 bits/s,  
 39       convolutional code and 20ms frame. The base station shall  
 40       set the value in the range from –48 to 48 inclusive.

41       If RC3\_RC5\_20MS\_INCL is set to ‘1’ and  
 42       RL\_ATT\_ADJ\_GAIN\_TYPE is set to ‘1’, the base station shall  
 43       set this field to the value of the pilot reference level  
 44       adjustment that the mobile station is to make for the  
 45       transmission attributes with transmission rate 4800 bits/s,  
 46       convolutional code and 20ms frame. ~~The base station shall~~  
 47       ~~set the value in the range from 0 to 63 inclusive.~~

1                   The base station shall set this field to the correction factor  
 2                   expressed as a two's complement value in units of 0.125 dB.

3    RL\_ATT\_ADJ\_GAIN\_9600 - Reverse Link Attribute Gain Adjustment for the transmission  
 4                   rate 9600 bits/s.

5                   If RC3\_RC5\_20MS\_INCL is set to '0', the base station shall  
 6                   omit this field.

7                   If RC3\_RC5\_20MS\_INCL is set to '1' and  
 8                   RL\_ATT\_ADJ\_GAIN\_TYPE is set to '0', the base station shall  
 9                   set this field to the value of the nominal attribute gain  
 10                  adjustment that the mobile station is to make for the  
 11                  transmission attributes with transmission rate 9600 bits/s,  
 12                  convolutional code and 20ms frame. The base station shall  
 13                  set the value in the range from -48 to 48 inclusive.

14                  If RC3\_RC5\_20MS\_INCL is set to '1' and  
 15                  RL\_ATT\_ADJ\_GAIN\_TYPE is set to '1', the base station shall  
 16                  set this field to the value of the pilot reference level  
 17                  adjustment that the mobile station is to make for the  
 18                  transmission attributes with transmission rate 9600 bits/s,  
 19                  convolutional code and 20ms frame. ~~The base station shall~~  
 20                  set the value in the range from 0 to 63 inclusive.

21                  The base station shall set this field to the correction factor  
 22                  expressed as a two's complement value in units of 0.125 dB.

#### 23                  RC4\_RC6-

24    \_20MS\_INCL - Reverse Link Attribute Adjustment Gain for Radio  
 25                  Configuration 4 or 6 of 20ms frame included indicator.

26                  If Reverse Link Attribute Adjustment Gain for Radio  
 27                  Configuration 4 or 6 of 20ms frame is included in this  
 28                  message, the base station shall set this field to '1'; otherwise,  
 29                  the base station shall set this field to '0'.

30    RL\_ATT\_ADJ\_GAIN\_1800 - Reverse Link Attribute Gain Adjustment for the transmission  
 31                  rate 1800 bits/s.

32                  If RC4\_RC6\_20MS\_INCL is set to '0', the base station shall  
 33                  omit this field.

34                  If RC4\_RC6\_20MS\_INCL is set to '1' and  
 35                  RL\_ATT\_ADJ\_GAIN\_TYPE is set to '0', the base station shall  
 36                  set this field to the value of the nominal attribute gain  
 37                  adjustment that the mobile station is to make for the  
 38                  transmission attributes with transmission rate 1800 bits/s,  
 39                  convolutional code and 20ms frame. The base station shall  
 40                  set the value in the range from -48 to 48 inclusive.

41                  If RC4\_RC6\_20MS\_INCL is set to '1' and  
 42                  RL\_ATT\_ADJ\_GAIN\_TYPE is set to '1', the base station shall  
 43                  set this field to the value of the pilot reference level  
 44                  adjustment that the mobile station is to make for the  
 45                  transmission attributes with transmission rate 1800 bits/s,  
 46                  convolutional code and 20ms frame. ~~The base station shall~~  
 47                  set the value in the range from 0 to 63 inclusive.

1                   The base station shall set this field to the correction factor  
 2                   expressed as a two's complement value in units of 0.125 dB.

3        RL\_ATT\_ADJ\_GAIN\_3600 -           Reverse Link Attribute Adjustment Gain for the transmission  
 4                   rate 3600 bits/s.

5                   If RC4\_RC6\_20MS\_INCL is set to '0', the base station shall  
 6                   omit this field.

7                   If RC4\_RC6\_20MS\_INCL is set to '1' and  
 8                   RL\_ATT\_ADJ\_GAIN\_TYPE is set to '0', the base station shall  
 9                   set this field to the value of the nominal attribute gain  
 10                  adjustment that the mobile station is to make for the  
 11                  transmission attributes with transmission rate 3600 bits/s,  
 12                  convolutional code and 20ms frame. The base station shall  
 13                  set the value in the range from -48 to 48 inclusive.

14                  If RC4\_RC6\_20MS\_INCL is set to '1' and  
 15                  RL\_ATT\_ADJ\_GAIN\_TYPE is set to '1', the base station shall  
 16                  set this field to the value of the pilot reference level  
 17                  adjustment that the mobile station is to make for the  
 18                  transmission attributes with transmission rate 3600 bits/s,  
 19                  convolutional code and 20ms frame. **The base station shall  
 20                  set the value in the range from 0 to 63 inclusive.**

21                   The base station shall set this field to the correction factor  
 22                   expressed as a two's complement value in units of 0.125 dB.

23        RL\_ATT\_ADJ\_GAIN\_7200 -           Reverse Link Attribute Adjustment Gain for the transmission  
 24                   rate 7200 bits/s.

25                   If RC4\_RC6\_20MS\_INCL is set to '0', the base station shall  
 26                   omit this field.

27                  If RC4\_RC6\_20MS\_INCL is set to '1' and  
 28                  RL\_ATT\_ADJ\_GAIN\_TYPE is set to '0', the base station shall  
 29                  set this field to the value of the nominal attribute gain  
 30                  adjustment that the mobile station is to make for the  
 31                  transmission attributes with transmission rate 7200 bits/s,  
 32                  convolutional code and 20ms frame. The base station shall  
 33                  set the value in the range from -48 to 48 inclusive.

34                  If RC4\_RC6\_20MS\_INCL is set to '1' and  
 35                  NORM\_ATT\_GAIN\_TYPE is set to '1', the base station shall set  
 36                  this field to the value of the pilot reference level adjustment  
 37                  that the mobile station is to make for the transmission  
 38                  attributes with transmission rate 7200 bits/s, convolutional  
 39                  code and 20ms frame. **The base station shall set the value in  
 40                  the range from 0 to 63 inclusive.**

41                   The base station shall set this field to the correction factor  
 42                   expressed as a two's complement value in units of 0.125 dB.

43        RL\_ATT\_ADJ\_GAIN\_14400-           Reverse Link Attribute Adjustment Gain for the transmission  
 44                   rate 14400 bits/s.

45                   If RC4\_RC6\_20MS\_INCL is set to '0', the base station shall  
 46                   omit this field.

1           If RC4\_RC6\_20MS\_INCL is set to '1' and  
 2        RL\_ATT\_ADJ\_GAIN\_TYPE is set to '0', the base station shall  
 3        set this field to the value of the nominal gain adjustment that  
 4        the mobile station is to make for the transmission attributes  
 5        with transmission rate 14400 bits/s, convolutional code and  
 6        20ms frame. The base station shall set the value in the range  
 7        from -48 to 48 inclusive.

8           If RC4\_RC6\_20MS\_INCL is set to '1' and  
 9        RL\_ATT\_ADJ\_GAIN\_TYPE is set to '1', the base station shall  
 10       set this field to the value of the pilot reference level  
 11       adjustment that the mobile station is to make for the  
 12       transmission attributes with transmission rate 14400 bits/s,  
 13       convolutional code and 20ms frame. ~~The base station shall  
 14       set the value in the range from 0 to 63 inclusive.~~

15       The base station shall set this field to the correction factor  
 16       expressed as a two's complement value in units of 0.125 dB.

17       5MS\_INCL    - 5ms frame Reverse Link Attribute Adjustment Gain included  
 18        indicator.

19       If Reverse Link Attribute Adjustment Gain for 5ms frame is  
 20        included in this message, the base station shall set this field  
 21        to '1'; otherwise, the base station shall set this field to '0'.

22       RL\_ATT\_ADJ\_GAIN-  
 23                 \_9600\_5MS - Reverse Link Attribute Adjustment Gain for the transmission  
 24                rate 9600 bits/s with 5ms frame.

25       If 5MS\_INCL is set to '0', the base station shall omit this field.

26       If 5MS\_INCL is set to '1' and RL\_ATT\_ADJ\_GAIN\_TYPE is set  
 27        to '0', the base station shall set this field to the value of the  
 28        nominal attribute gain adjustment that the mobile station is  
 29        to make for the transmission attributes with transmission rate  
 30        9600 bits/s, convolutional code and 5ms frame. The base  
 31        station shall set the value in the range from -48 to 48  
 32        inclusive.

33       If 5MS\_INCL is set to '1' and RL\_ATT\_ADJ\_GAIN\_TYPE is set  
 34        to '1', the base station shall set this field to the value of the  
 35        pilot reference level adjustment that the mobile station is to  
 36        make for the transmission attributes with transmission rate  
 37        9600 bits/s, convolutional code and 5ms frame. ~~The base  
 38        station shall set the value in the range from 0 to 63 inclusive.~~

39       The base station shall set this field to the correction factor  
 40        expressed as a two's complement value in units of 0.125 dB.

41       RC3\_RC5\_40MS\_INCL - Reverse Link Attribute Adjustment Gain for Radio  
 42        Configuration 3 or 5 of 40 ms frame included indicator.

43       If Reverse Link Attribute adjustment Gain for Radio  
 44        Configuration 3 or 5 of 40 ms frame is included in this  
 45        message, the base station shall set this field to '1'; otherwise,  
 46        the base station shall set this field to '0'.

47       RL\_ATT\_ADJ\_GAIN-

- 1           \_1350\_40MS    - Reverse Link Attribute Adjustment Gain for the transmission  
 2                          rate 1350 bits/s.  
 3                          If RC3\_RC5\_40MS\_INCL is set to '0', the base station shall  
 4                          omit this field.  
 5                          If RC3\_RC5\_40MS\_INCL is set to '1' and  
 6                          RL\_ATT\_ADJ\_GAIN\_TYPE is set to '0', the base station shall  
 7                          set this field to the value of the nominal attribute gain  
 8                          adjustment that the mobile station is to make for the  
 9                          transmission attributes with transmission rate 1350 bits/s,  
 10                         convolutional code and 40ms frame. The base station shall  
 11                         set the value in the range from -48 to 48 inclusive.  
 12                          If RC3\_RC5\_40MS\_INCL is set to '1' and  
 13                          RL\_ATT\_ADJ\_GAIN\_TYPE is set to '1', the base station shall  
 14                          set this field to the value of the pilot reference level  
 15                          adjustment that the mobile station is to make for the  
 16                          transmission attributes with transmission rate 1350 bits/s,  
 17                         convolutional code and 40ms frame. ~~The base station shall  
 18                         set the value in the range from 0 to 63 inclusive.~~  
 19                          The base station shall set this field to the correction factor  
 20                          expressed as a two's complement value in units of 0.125 dB.  
 21            RL\_ATT\_ADJ\_GAIN-  
 22                \_2400\_40MS    - Reverse Link Attribute Adjustment Gain for the transmission  
 23                          rate 2400 bits/s.  
 24                          If RC3\_RC5\_40MS\_INCL is set to '0', the base station shall  
 25                          omit this field.  
 26                          If RC3\_RC5\_40MS\_INCL is set to '1' and  
 27                          RL\_ATT\_ADJ\_GAIN\_TYPE is set to '0', the base station shall  
 28                          set this field to the value of the nominal attribute gain  
 29                          adjustment that the mobile station is to make for the  
 30                          transmission attributes with transmission rate 2400 bits/s,  
 31                         convolutional code and 40ms frame. The base station shall  
 32                         set the value in the range from -48 to 48 inclusive.  
 33                          If RC3\_RC5\_40MS\_INCL is set to '1' and  
 34                          RL\_ATT\_ADJ\_GAIN\_TYPE is set to '1', the base station shall  
 35                          set this field to the value of the pilot reference level  
 36                          adjustment that the mobile station is to make for the  
 37                          transmission attributes with transmission rate 2400 bits/s,  
 38                         convolutional code and 40ms frame. ~~The base station shall  
 39                         set the value in the range from 0 to 63 inclusive.~~  
 40                          The base station shall set this field to the correction factor  
 41                          expressed as a two's complement value in units of 0.125 dB.  
 42            RL\_ATT\_ADJ\_GAIN-  
 43                \_4800\_40MS    - Reverse Link Attribute Gain Adjustment for the transmission  
 44                          rate 4800 bits/s.  
 45                          If RC3\_RC5\_40MS\_INCL is set to '0', the base station shall  
 46                          omit this field.

If RC3\_RC5\_40MS\_INCL is set to ‘1’ and RL\_ATT\_ADJ\_GAIN\_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 4800 bits/s, convolutional code and 40ms frame. The base station shall set the value in the range from -48 to 48 inclusive.

If RC3\_RC5\_40MS\_INCL is set to ‘1’ and RL\_ATT\_ADJ\_GAIN\_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 4800 bits/s, convolutional code and 40ms frame. ~~The base station shall set the value in the range from 0 to 63 inclusive.~~

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

#### RL\_ATT\_ADJ\_GAIN-

\_9600\_40MS

- Reverse Link Attribute Gain Adjustment for the transmission rate 9600 bits/s.

If RC3\_RC5\_40MS\_INCL is set to ‘0’, the base station shall omit this field.

If RC3\_RC5\_40MS\_INCL is set to ‘1’ and RL\_ATT\_ADJ\_GAIN\_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 9600 bits/s, convolutional code and 40ms frame. The base station shall set the value in the range from -48 to 48 inclusive.

If RC3\_RC5\_40MS\_INCL is set to ‘1’ and RL\_ATT\_ADJ\_GAIN\_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 9600 bits/s, convolutional code and 40ms frame. ~~The base station shall set the value in the range from 0 to 63 inclusive.~~

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

#### RC4\_RC6\_40MS\_INCL

- Reverse Link Attribute Adjustment Gain for Radio Configuration 4 or 6 of 40ms frame included indicator.

If Reverse Link Attribute Adjustment Gain for Radio Configuration 4 or 6 of 40ms frame is included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

#### RL\_ATT\_ADJ\_GAIN-

\_1800\_40MS

- Reverse Link Attribute Gain Adjustment for the transmission rate 1800 bits/s.

1           If RC4\_RC6\_40MS\_INCL is set to '0', the base station shall  
 2           omit this field.

3           If RC4\_RC6\_40MS\_INCL is set to '1' and  
 4           RL\_ATT\_ADJ\_GAIN\_TYPE is set to '0', the base station shall  
 5           set this field to the value of the nominal attribute gain  
 6           adjustment that the mobile station is to make for the  
 7           transmission attributes with transmission rate 1800 bits/s,  
 8           convolutional code and 40ms frame. The base station shall  
 9           set the value in the range from -48 to 48 inclusive.

10          If RC4\_RC6\_40MS\_INCL is set to '1' and  
 11         RL\_ATT\_ADJ\_GAIN\_TYPE is set to '1', the base station shall  
 12         set this field to the value of the pilot reference level  
 13         adjustment that the mobile station is to make for the  
 14         transmission attributes with transmission rate 1800 bits/s,  
 15         convolutional code and 40ms frame. ~~The base station shall~~  
 16         ~~set the value in the range from 0 to 63 inclusive.~~

17          The base station shall set this field to the correction factor  
 18          expressed as a two's complement value in units of 0.125 dB.

19         RL\_ATT\_ADJ\_GAIN-

20            \_3600\_40MS

- Reverse Link Attribute Adjustment Gain for the transmission rate 3600 bits/s.

22          If RC4\_RC6\_40MS\_INCL is set to '0', the base station shall  
 23          omit this field.

24          If RC4\_RC6\_40MS\_INCL is set to '1' and  
 25          RL\_ATT\_ADJ\_GAIN\_TYPE is set to '0', the base station shall  
 26          set this field to the value of the nominal attribute gain  
 27          adjustment that the mobile station is to make for the  
 28          transmission attributes with transmission rate 3600 bits/s,  
 29          convolutional code and 40ms frame. The base station shall  
 30          set the value in the range from -48 to 48 inclusive.

31          If RC4\_RC6\_40MS\_INCL is set to '1' and  
 32          RL\_ATT\_ADJ\_GAIN\_TYPE is set to '1', the base station shall  
 33          set this field to the value of the pilot reference level  
 34          adjustment that the mobile station is to make for the  
 35          transmission attributes with transmission rate 3600 bits/s,  
 36          convolutional code and 40ms frame. ~~The base station shall~~  
 37          ~~set the value in the range from 0 to 63 inclusive.~~

38          The base station shall set this field to the correction factor  
 39          expressed as a two's complement value in units of 0.125 dB.

40         RL\_ATT\_ADJ\_GAIN-

41            \_7200\_40MS

- Reverse Link Attribute Adjustment Gain for the transmission rate 7200 bits/s.

43          If RC4\_RC6\_40MS\_INCL is set to '0', the base station shall  
 44          omit this field.

If RC4\_RC6\_40MS\_INCL is set to ‘1’ and RL\_ATT\_ADJ\_GAIN\_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 7200 bits/s, convolutional code and 40ms frame. The base station shall set the value in the range from -48 to 48 inclusive.

If RC4\_RC6\_40MS\_INCL is set to ‘1’ and NORM\_ATT\_GAIN\_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 7200 bits/s, convolutional code and 40ms frame. ~~The base station shall set the value in the range from 0 to 63 inclusive.~~

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

#### 17        RL\_ATT\_ADJ\_GAIN-

##### 18            \_14400\_40MS

- Reverse Link Attribute Adjustment Gain for the transmission rate 14400 bits/s.

If RC4\_RC6\_40MS\_INCL is set to ‘0’, the base station shall omit this field.

If RC4\_RC6\_40MS\_INCL is set to ‘1’ and RL\_ATT\_ADJ\_GAIN\_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 14400 bits/s, convolutional code and 40ms frame. The base station shall set the value in the range from -48 to 48 inclusive.

If RC4\_RC6\_40MS\_INCL is set to ‘1’ and RL\_ATT\_ADJ\_GAIN\_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 14400 bits/s, convolutional code and 40ms frame. ~~The base station shall set the value in the range from 0 to 63 inclusive.~~

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

#### 38        RC3\_RC5\_80MS\_INCL

- Reverse Link Attribute Adjustment Gain for Radio Configuration 3 or 5 of 80 ms frame included indicator.

If Reverse Link Attribute adjustment Gain for Radio Configuration 3 or 5 of 80 ms frame is included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

#### 44        RL\_ATT\_ADJ\_GAIN-

##### 45            \_1200\_80MS

- Reverse Link Attribute Adjustment Gain for the transmission rate 1200 bits/s.

1           If RC3\_RC5\_80MS\_INCL is set to '0', the base station shall  
 2           omit this field.

3           If RC3\_RC5\_80MS\_INCL is set to '1' and  
 4           RL\_ATT\_ADJ\_GAIN\_TYPE is set to '0', the base station shall  
 5           set this field to the value of the nominal attribute gain  
 6           adjustment that the mobile station is to make for the  
 7           transmission attributes with transmission rate 1200 bits/s,  
 8           convolutional code and 80ms frame. The base station shall  
 9           set the value in the range from -48 to 48 inclusive.

10          If RC3\_RC5\_80MS\_INCL is set to '1' and  
 11         RL\_ATT\_ADJ\_GAIN\_TYPE is set to '1', the base station shall  
 12         set this field to the value of the pilot reference level  
 13         adjustment that the mobile station is to make for the  
 14         transmission attributes with transmission rate 1200 bits/s,  
 15         convolutional code and 80ms frame. ~~The base station shall~~  
 16         ~~set the value in the range from 0 to 63 inclusive.~~

17          The base station shall set this field to the correction factor  
 18          expressed as a two's complement value in units of 0.125 dB.

19         RL\_ATT\_ADJ\_GAIN-

20            \_2400\_80MS

- Reverse Link Attribute Adjustment Gain for the transmission rate 2400 bits/s.

22          If RC3\_RC5\_80MS\_INCL is set to '0', the base station shall  
 23          omit this field.

24          If RC3\_RC5\_80MS\_INCL is set to '1' and  
 25          RL\_ATT\_ADJ\_GAIN\_TYPE is set to '0', the base station shall  
 26          set this field to the value of the nominal attribute gain  
 27          adjustment that the mobile station is to make for the  
 28          transmission attributes with transmission rate 2400 bits/s,  
 29          convolutional code and 80ms frame. The base station shall  
 30          set the value in the range from -48 to 48 inclusive.

31          If RC3\_RC5\_80MS\_INCL is set to '1' and  
 32          RL\_ATT\_ADJ\_GAIN\_TYPE is set to '1', the base station shall  
 33          set this field to the value of the pilot reference level  
 34          adjustment that the mobile station is to make for the  
 35          transmission attributes with transmission rate 2400 bits/s,  
 36          convolutional code and 80ms frame. ~~The base station shall~~  
 37          ~~set the value in the range from 0 to 63 inclusive.~~

38          The base station shall set this field to the correction factor  
 39          expressed as a two's complement value in units of 0.125 dB.

40         RL\_ATT\_ADJ\_GAIN-

41            \_4800\_80MS

- Reverse Link Attribute Gain Adjustment for the transmission rate 4800 bits/s.

43          If RC3\_RC5\_80MS\_INCL is set to '0', the base station shall  
 44          omit this field.

If RC3\_RC5\_40MS\_INCL is set to ‘1’ and RL\_ATT\_ADJ\_GAIN\_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 4800 bits/s, convolutional code and 80ms frame. The base station shall set the value in the range from -48 to 48 inclusive.

If RC3\_RC5\_80MS\_INCL is set to ‘1’ and RL\_ATT\_ADJ\_GAIN\_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 4800 bits/s, convolutional code and 840ms 80ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

#### RL\_ATT\_ADJ\_GAIN-

\_9600\_80MS

- Reverse Link Attribute Gain Adjustment for the transmission rate 9600 bits/s.

If RC3\_RC5\_80MS\_INCL is set to ‘0’, the base station shall omit this field.

If RC3\_RC5\_80MS\_INCL is set to ‘1’ and RL\_ATT\_ADJ\_GAIN\_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 9600 bits/s, convolutional code and 80ms frame. The base station shall set the value in the range from -48 to 48 inclusive.

If RC3\_RC5\_80MS\_INCL is set to ‘1’ and RL\_ATT\_ADJ\_GAIN\_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 9600 bits/s, convolutional code and 80ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

#### RC4\_RC6\_80MS\_INCL

- Reverse Link Attribute Adjustment Gain for Radio Configuration 4 or 6 of 80ms frame included indicator.

If Reverse Link Attribute Adjustment Gain for Radio Configuration 4 or 6 of 80ms frame is included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

#### RL\_ATT\_ADJ\_GAIN-

\_1800\_80MS

- Reverse Link Attribute Gain Adjustment for the transmission rate 1800 bits/s.

1           If RC4\_RC6\_80MS\_INCL is set to '0', the base station shall  
 2           omit this field.

3           If RC4\_RC6\_80MS\_INCL is set to '1' and  
 4           RL\_ATT\_ADJ\_GAIN\_TYPE is set to '0', the base station shall  
 5           set this field to the value of the nominal attribute gain  
 6           adjustment that the mobile station is to make for the  
 7           transmission attributes with transmission rate 1800 bits/s,  
 8           convolutional code and 80ms frame. The base station shall  
 9           set the value in the range from -48 to 48 inclusive.

10          If RC4\_RC6\_80MS\_INCL is set to '1' and  
 11         RL\_ATT\_ADJ\_GAIN\_TYPE is set to '1', the base station shall  
 12         set this field to the value of the pilot reference level  
 13         adjustment that the mobile station is to make for the  
 14         transmission attributes with transmission rate 1800 bits/s,  
 15         convolutional code and 80ms frame. ~~The base station shall~~  
 16         ~~set the value in the range from 0 to 63 inclusive.~~

17          The base station shall set this field to the correction factor  
 18          expressed as a two's complement value in units of 0.125 dB.

19         RL\_ATT\_ADJ\_GAIN-

20            \_3600\_80MS

- Reverse Link Attribute Adjustment Gain for the transmission rate 3600 bits/s.

22          If RC4\_RC6\_80MS\_INCL is set to '0', the base station shall  
 23          omit this field.

24          If RC4\_RC6\_80MS\_INCL is set to '1' and  
 25          RL\_ATT\_ADJ\_GAIN\_TYPE is set to '0', the base station shall  
 26          set this field to the value of the nominal attribute gain  
 27          adjustment that the mobile station is to make for the  
 28          transmission attributes with transmission rate 3600 bits/s,  
 29          convolutional code and 80ms frame. The base station shall  
 30          set the value in the range from -48 to 48 inclusive.

31          If RC4\_RC6\_80MS\_INCL is set to '1' and  
 32          RL\_ATT\_ADJ\_GAIN\_TYPE is set to '1', the base station shall  
 33          set this field to the value of the pilot reference level  
 34          adjustment that the mobile station is to make for the  
 35          transmission attributes with transmission rate 3600 bits/s,  
 36          convolutional code and 80ms frame. ~~The base station shall~~  
 37          ~~set the value in the range from 0 to 63 inclusive.~~

38          The base station shall set this field to the correction factor  
 39          expressed as a two's complement value in units of 0.125 dB.

40         RL\_ATT\_ADJ\_GAIN-

41            \_7200\_80MS

- Reverse Link Attribute Adjustment Gain for the transmission rate 7200 bits/s.

43          If RC4\_RC6\_80MS\_INCL is set to '0', the base station shall  
 44          omit this field.

If RC4\_RC6\_80MS\_INCL is set to '1' and RL\_ATT\_ADJ\_GAIN\_TYPE is set to '0', the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 7200 bits/s, convolutional code and 80ms frame. The base station shall set the value in the range from -48 to 48 inclusive.

If RC4\_RC6\_80MS\_INCL is set to '1' and NORM\_ATT\_GAIN\_TYPE is set to '1', the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 7200 bits/s, convolutional code and 80ms frame. ~~The base station shall set the value in the range from 0 to 63 inclusive.~~

The base station shall set this field to the correction factor expressed as a two's complement value in units of 0.125 dB.

#### 17        RL\_ATT\_ADJ\_GAIN-

18            \_14400\_80MS

- Reverse Link Attribute Adjustment Gain for the transmission rate 14400 bits/s.

If RC4\_RC6\_80MS\_INCL is set to '0', the base station shall omit this field.

If RC4\_RC6\_80MS\_INCL is set to '1' and RL\_ATT\_ADJ\_GAIN\_TYPE is set to '0', the base station shall set this field to the value of the nominal gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 14400 bits/s, convolutional code and 80ms frame. The base station shall set the value in the range from -48 to 48 inclusive.

If RC4\_RC6\_40MS\_INCL is set to '1' and RL\_ATT\_ADJ\_GAIN\_TYPE is set to '1', the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 14400 bits/s, convolutional code and 80ms frame. ~~The base station shall set the value in the range from 0 to 63 inclusive.~~

The base station shall set this field to the correction factor expressed as a two's complement value in units of 0.125 dB.

#### 38        RESERVED

- Reserved bits.

The base station shall add reserved bits as needed in order to make the length of the entire record equal to an integer number of octets. The base station shall set these bits to '0'.

If RPC\_ADJ\_REC\_TYPE is equal to '0010', the base station shall set type-specific fields as specified in Table 3.7.2.3.2.25-6.

1  
2**Table 3.7.2.3.2.25-6. Type Specific Fields for  
RECORD\_TYPE = '0010'**

| <b>Fields</b>               | <b>Length (Bits)</b> |
|-----------------------------|----------------------|
| CODE_TYPE                   | 1                    |
| RL_ATT_ADJ_GAIN_TYPE        | 1                    |
| RC3_RC5_20MS_INCL           | 1                    |
| RL_ATT_ADJ_GAIN_19200       | 0 or 8               |
| RL_ATT_ADJ_GAIN_38400       | 0 or 8               |
| RL_ATT_ADJ_GAIN_76800       | 0 or 8               |
| RL_ATT_ADJ_GAIN_153600      | 0 or 8               |
| RL_ATT_ADJ_GAIN_307200      | 0 or 8               |
| RL_ATT_ADJ_GAIN_614400      | 0 or 8               |
| RC4_RC6_20MS_INCL           | 1                    |
| RL_ATT_ADJ_GAIN_28800       | 0 or 8               |
| RL_ATT_ADJ_GAIN_57600       | 0 or 8               |
| RL_ATT_ADJ_GAIN_115200      | 0 or 8               |
| RL_ATT_ADJ_GAIN_230400      | 0 or 8               |
| RL_ATT_ADJ_GAIN_460800      | 0 or 8               |
| RL_ATT_ADJ_GAIN_1036800     | 0 or 8               |
| RC3_RC5_40MS_INCL           | 1                    |
| RL_ATT_ADJ_GAIN_19200_40MS  | 0 or 8               |
| RL_ATT_ADJ_GAIN_38400_40MS  | 0 or 8               |
| RL_ATT_ADJ_GAIN_76800_40MS  | 0 or 8               |
| RL_ATT_ADJ_GAIN_153600_40MS | 0 or 8               |
| RL_ATT_ADJ_GAIN_307200_40MS | 0 or 8               |
| RC4_RC6_40MS_INCL           | 1                    |
| RL_ATT_ADJ_GAIN_28800_40MS  | 0 or 8               |
| RL_ATT_ADJ_GAIN_57600_40MS  | 0 or 8               |
| RL_ATT_ADJ_GAIN_115200_40MS | 0 or 8               |

3  
4

(continues on next page)

| <b>Fields</b>               | <b>Length (Bits)</b> |
|-----------------------------|----------------------|
| RL_ATT_ADJ_GAIN_230400_40MS | 0 or 8               |
| RL_ATT_ADJ_GAIN_518400_40MS | 0 or 8               |
| RC3_RC5_80MS_INCL           | 1                    |
| RL_ATT_ADJ_GAIN_19200_80MS  | 0 or 8               |
| RL_ATT_ADJ_GAIN_38400_80MS  | 0 or 8               |
| RL_ATT_ADJ_GAIN_76800_80MS  | 0 or 8               |
| RL_ATT_ADJ_GAIN_153600_80MS | 0 or 8               |
| RC4_RC6_80MS_INCL           | 1                    |
| RL_ATT_ADJ_GAIN_28800_80MS  | 0 or 8               |
| RL_ATT_ADJ_GAIN_57600_80MS  | 0 or 8               |
| RL_ATT_ADJ_GAIN_115200_80MS | 0 or 8               |
| RL_ATT_ADJ_GAIN_259200_80MS | 0 or 8               |

1

|          |                 |
|----------|-----------------|
| RESERVED | 0-7 (if needed) |
|----------|-----------------|

2

- 3           CODE\_TYPE     - Coding type indicator.  
 4                         If the following corresponding gain adjustment fields apply for  
 5                         the convolutional code, the base station shall set this field to  
 6                         ‘0’. If the following corresponding gain adjustment fields apply  
 7                         for the Turbo code, the base station shall set this field to ‘1’.
- 8           RL\_ATT\_ADJ-  
 9               \_GAIN\_TYPE - Reverse Link Attribute adjustment Gain value type indicator.  
 10                  If the following corresponding gain adjustment fields are set to  
 11                  the value of the nominal attribute gain adjustment that the  
 12                  mobile station is to make for the corresponding transmission  
 13                  attributes (relative to Nominal\_Attribute\_Gain specified in  
 14                  Table 2.1.2.3.3-1 of [2]), the base station shall set this field to  
 15                  ‘0’. If the following corresponding gain adjustment fields are  
 16                  set to the value of the pilot reference level adjustment that the  
 17                  mobile station is to use for the corresponding transmission  
 18                  attributes (relative to Pilot\_Reference\_Level specified in Table  
 19                  2.1.2.3.3-1 of [2]), the base station shall set this field to ‘1’.
- 20           RC3\_RC5-  
 21               \_20MS\_INCL - Reverse Link Attribute Adjustment Gain for Radio  
 22                  Configuration 3 or 5 of 20ms frame included indicator.  
 23                  If Reverse Link Attribute Adjustment Gain for Radio  
 24                  Configuration 3 or 5 of 20ms frame is included in this  
 25                  message, the base station shall set this field to ‘1’; otherwise,  
 26                  the base station shall set this field to ‘0’.

### RL\_ATT\_ADJ\_GAIN-

-19200

- Reverse Link Attribute Adjustment Gain for the transmission rate 19200 bits/s.

If RC3\_RC5\_20MS\_INCL is set to '0', the base station shall omit this field.

If `RC3_RC5_20MS_INCL` is set to '1' and `RL_ATT_ADJ_GAIN_TYPE` is set to '0', the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 19200 bits/s, and 20ms frame. The base station shall set the value in the range from -48 to 48 inclusive.

If RC3\_RC5\_20MS\_INCL is set to '1' and RL\_ATT\_ADJ\_GAIN\_TYPE is set to '1', the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 19200 bits/s and 20ms frame. ~~The base station shall set the value in the range from 0 to 63 inclusive.~~

The base station shall set this field to the correction factor expressed as a two's complement value in units of 0.125 dB.

## RL\_ATT\_ADJ\_GAIN-

\_38400

- Reverse Link Attribute Adjustment Gain for the transmission rate 38400 bits/s.

If RC3\_RC5\_20MS\_INCL is set to '0', the base station shall omit this field.

If RC3\_RC5\_20MS\_INCL is set to '1' and RL\_ATT\_ADJ\_GAIN\_TYPE is set to '0', the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 38400 bits/s, and 20ms frame. The base station shall set the value in the range from -48 to 48 inclusive.

If RC3\_RC5\_20MS\_INCL is set to '1' and NORM\_ATT\_GAIN\_TYPE is set to '1', the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 38400 bits/s and 20ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two's complement value in units of 0.125 dB.

## RL\_ATT\_ADJ\_GAIN-

-76800

- Reverse Link Attribute Adjustment Gain for the transmission rate 76800 bits/s.

If RC3\_RC5\_20MS\_INCL is set to '0', the base station shall omit this field.

1           If RC3\_RC5\_20MS\_INCL is set to ‘1’ and  
 2           RL\_ATT\_ADJ\_GAIN\_TYPE is set to ‘0’, the base station shall  
 3           set this field to the value of the nominal attribute gain  
 4           adjustment that the mobile station is to make for the  
 5           transmission attributes with transmission rate 76800 bits/s,  
 6           and 20ms frame. The base station shall set the value in the  
 7           range from –48 to 48 inclusive.

8           If RC3\_RC5\_20MS\_INCL is set to ‘1’ and  
 9           RL\_ATT\_ADJ\_GAIN\_TYPE is set to ‘1’, the base station shall  
 10          set this field to the value of the pilot reference level  
 11          adjustment that the mobile station is to make for the  
 12          transmission attributes with transmission rate 76800 bits/s  
 13          and 20ms frame. ~~The base station shall set the value in the  
 14          range from 0 to 63 inclusive.~~

15          The base station shall set this field to the correction factor  
 16          expressed as a two’s complement value in units of 0.125 dB.

17        **RL\_ATT\_ADJ\_GAIN-**

18        **\_153600** - Reverse Link Attribute Adjustment Gain for the transmission  
 19           rate 153600 bits/s.

20          If RC3\_RC5\_20MS\_INCL is set to ‘0’, the base station shall  
 21          omit this field.

22          If RC3\_RC5\_20MS\_INCL is set to ‘1’ and  
 23           NORM\_ATT\_GAIN\_TYPE is set to ‘0’, the base station shall set  
 24           this field to the value of the nominal attribute gain adjustment  
 25           that the mobile station is to make for the transmission  
 26           attributes with transmission rate 153600 bits/s, and 20ms  
 27           frame. The base station shall set the value in the range from  
 28           –48 to 48 inclusive.

29          If RC3\_RC5\_20MS\_INCL is set to ‘1’ and  
 30           NORM\_ATT\_GAIN\_TYPE is set to ‘1’, the base station shall set  
 31           this field to the value of the pilot reference level adjustment  
 32           that the mobile station is to make for the transmission  
 33           attributes with transmission rate 153600 bits/s and 20ms  
 34           frame. ~~The base station shall set the value in the range from  
 35           0 to 63 inclusive.~~

36          The base station shall set this field to the correction factor  
 37          expressed as a two’s complement value in units of 0.125 dB.

38        **RL\_ATT\_ADJ\_GAIN-**

39        **\_307200** - Reverse Link Attribute Adjustment Gain for the transmission  
 40           rate 307200 bits/s.

41          If RC3\_RC5\_20MS\_INCL is set to ‘0’, the base station shall  
 42          omit this field.

1           If RC3\_RC5\_20MS\_INCL is set to ‘1’ and  
 2           RL\_ATT\_ADJ\_GAIN\_TYPE is set to ‘0’, the base station shall  
 3           set this field to the value of the nominal attribute gain  
 4           adjustment that the mobile station is to make for the  
 5           transmission attributes with transmission rate 307200 bits/s,  
 6           and 20ms frame. The base station shall set the value in the  
 7           range from -48 to 48 inclusive.

8           If RC3\_RC5\_20MS\_INCL is set to ‘1’ and  
 9           RL\_ATT\_ADJ\_GAIN\_TYPE is set to ‘1’, the base station shall  
 10          set this field to the value of the pilot reference level  
 11          adjustment that the mobile station is to make for the  
 12          transmission attributes with transmission rate 307200 bits/s  
 13          and 20ms frame. ~~The base station shall set the value in the~~  
 14          ~~range from 0 to 63 inclusive.~~

15          The base station shall set this field to the correction factor  
 16          expressed as a two’s complement value in units of 0.125 dB.

17        **RL\_ATT\_ADJ\_GAIN-**

18           **\_614400**

- Reverse Link Attribute Adjustment Gain for the transmission rate 614400 bits/s.

20          If RC3\_RC5\_20MS\_INCL is set to ‘0’, the base station shall  
 21          omit this field.

22          If RC3\_RC5\_20MS\_INCL is set to ‘1’ and  
 23           RL\_ATT\_ADJ\_GAIN\_TYPE is set to ‘0’, the base station shall  
 24           set this field to the value of the nominal attribute gain  
 25           adjustment that the mobile station is to make for the  
 26           transmission attributes with transmission rate 614400 bits/s,  
 27           and 20ms frame. The base station shall set the value in the  
 28           range from -48 to 48 inclusive.

29          If RC3\_RC5\_20MS\_INCL is set to ‘1’ and  
 30           RL\_ATT\_ADJ\_GAIN\_TYPE is set to ‘1’, the base station shall  
 31           set this field to the value of the pilot reference level  
 32           adjustment that the mobile station is to make for the  
 33           transmission attributes with transmission rate 614400 bits/s  
 34           and 20ms frame. ~~The base station shall set the value in the~~  
 35           ~~range from 0 to 63 inclusive.~~

36          The base station shall set this field to the correction factor  
 37          expressed as a two’s complement value in units of 0.125 dB.

38        **RC4\_RC6-**

39           **\_20MS\_INCL**

- Reverse Link Attribute Adjustment Gain for Radio Configuration 4 or 6 of 20ms frame included indicator.

41          If Reverse Link Attribute Adjustment Gain for Radio Configuration 4 or 6 of 20ms frame is included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

45        **RL\_ATT\_ADJ\_GAIN-**

46           **\_28800**

- Reverse Link Attribute Adjustment Gain for the transmission rate 28800 bits/s.

1           If RC4\_RC6\_20MS\_INCL is set to '0', the base station shall  
 2           omit this field.

3           If RC4\_RC6\_20MS\_INCL is set to '1' and  
 4           RL\_ATT\_ADJ\_GAIN\_TYPE is set to '0', the base station shall  
 5           set this field to the value of the nominal attribute gain  
 6           adjustment that the mobile station is to make for the  
 7           transmission attributes with transmission rate 28800 bits/s,  
 8           and 20ms frame. The base station shall set the value in the  
 9           range from -48 to 48 inclusive.

10          If RC4\_RC6\_20MS\_INCL is set to '1' and  
 11          NORM\_ATT\_GAIN\_TYPE is set to '1', the base station shall set  
 12          this field to the value of the pilot reference level adjustment  
 13          that the mobile station is to make for the transmission  
 14          attributes with transmission rate 28800 bits/s and 20ms  
 15          frame. ~~The base station shall set the value in the range from~~  
 16          ~~0 to 63 inclusive.~~

17          The base station shall set this field to the correction factor  
 18          expressed as a two's complement value in units of 0.125 dB.

19        **RL\_ATT\_ADJ\_GAIN-**

20        **\_57600**    - Reverse Link Attribute Adjustment Gain for the transmission  
 21           rate 57600 bits/s.

22          If RC4\_RC6\_20MS\_INCL is set to '0', the base station shall  
 23          omit this field.

24          If RC4\_RC6\_20MS\_INCL is set to '1' and  
 25          NORM\_ATT\_GAIN\_TYPE is set to '0', the base station shall set  
 26          this field to the value of the nominal attribute gain adjustment  
 27          that the mobile station is to make for the transmission  
 28          attributes with transmission rate 57600 bits/s, and 20ms  
 29          frame. The base station shall set the value in the range from  
 30          -48 to 48 inclusive.

31          If RC4\_RC6\_20MS\_INCL is set to '1' and  
 32          NORM\_ATT\_GAIN\_TYPE is set to '1', the base station shall set  
 33          this field to the value of the pilot reference level adjustment  
 34          that the mobile station is to make for the transmission  
 35          attributes with transmission rate 57600 bits/s and 20ms  
 36          frame. ~~The base station shall set the value in the range from~~  
 37          ~~0 to 63 inclusive.~~

38          The base station shall set this field to the correction factor  
 39          expressed as a two's complement value in units of 0.125 dB.

40        **RL\_ATT\_ADJ\_GAIN-**

41        **\_115200**    - Reverse Link Attribute Adjustment Gain for the transmission  
 42           rate 115200 bits/s.

43          If RC4\_RC6\_20MS\_INCL is set to '0', the base station shall  
 44          omit this field.

1        If RC4\_RC6\_20MS\_INCL is set to ‘1’ and  
 2        RL\_ATT\_ADJ\_GAIN\_TYPE is set to ‘0’, the base station shall  
 3        set this field to the value of the nominal attribute gain  
 4        adjustment that the mobile station is to make for the  
 5        transmission attributes with transmission rate 115200 bits/s,  
 6        and 20ms frame. The base station shall set the value in the  
 7        range from -48 to 48 inclusive.

8        If RC4\_RC6\_20MS\_INCL is set to ‘1’ and  
 9        RL\_ATT\_ADJ\_GAIN\_TYPE is set to ‘1’, the base station shall  
 10      set this field to the value of the pilot reference level  
 11      adjustment that the mobile station is to make for the  
 12      transmission attributes with transmission rate 115200 bits/s  
 13      and 20ms frame. ~~The base station shall set the value in the~~  
 14      ~~range from 0 to 63 inclusive.~~

15      The base station shall set this field to the correction factor  
 16      expressed as a two’s complement value in units of 0.125 dB.

17      RL\_ATT\_ADJ\_GAIN-

18                  \_230400

- Reverse Link Attribute Adjustment Gain for the transmission rate 230400 bits/s.

20      If RC4\_RC6\_20MS\_INCL is set to ‘0’, the base station shall  
 21      omit this field.

22      If RC4\_RC6\_20MS\_INCL is set to ‘1’ and  
 23      RL\_ATT\_ADJ\_GAIN\_TYPE is set to ‘0’, the base station shall  
 24      set this field to the value of the nominal attribute gain  
 25      adjustment that the mobile station is to make for the  
 26      transmission attributes with transmission rate 230400 bits/s,  
 27      and 20ms frame. The base station shall set the value in the  
 28      range from -48 to 48 inclusive.

29      If RC4\_RC6\_20MS\_INCL is set to ‘1’ and  
 30      RL\_ATT\_ADJ\_GAIN\_TYPE is set to ‘1’, the base station shall  
 31      set this field to the value of the pilot reference level  
 32      adjustment that the mobile station is to make for the  
 33      transmission attributes with transmission rate 230400 bits/s  
 34      and 20ms frame. ~~The base station shall set the value in the~~  
 35      ~~range from 0 to 63 inclusive.~~

36      The base station shall set this field to the correction factor  
 37      expressed as a two’s complement value in units of 0.125 dB.

38      RL\_ATT\_ADJ\_GAIN-

39                  \_460800

- Reverse Link Attribute Adjustment Gain for the transmission rate 460800 bits/s.

41      If RC4\_RC6\_20MS\_INCL is set to ‘0’, the base station shall  
 42      omit this field.

If RC4\_RC6\_20MS\_INCL is set to ‘1’ and RL\_ATT\_ADJ\_GAIN\_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 460800 bits/s, and 20ms frame. The base station shall set the value in the range from -48 to 48 inclusive.

If RC4\_RC6\_20MS\_INCL is set to ‘1’ and RL\_ATT\_ADJ\_GAIN\_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 460800 bits/s and 20ms frame. ~~The base station shall set the value in the range from 0 to 63 inclusive.~~

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

#### RL\_ATT\_ADJ\_GAIN-

\_1036800

- Reverse Link Attribute Adjustment Gain for the transmission rate 1036800 bits/s.

If RC4\_RC6\_20MS\_INCL is set to ‘0’, the base station shall omit this field.

If RC4\_RC6\_20MS\_INCL is set to ‘1’ and RL\_ATT\_ADJ\_GAIN\_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 1036800 bits/s, and 20ms frame. The base station shall set the value in the range from -48 to 48 inclusive.

If RC4\_RC6\_20MS\_INCL is set to ‘1’ and RL\_ATT\_ADJ\_GAIN\_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 1306800 bits/s and 20ms frame. ~~The base station shall set the value in the range from 0 to 63 inclusive.~~

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

#### RC3\_RC5\_40MS\_INCL

- Reverse Link Attribute Adjustment Gain for Radio Configuration 3 or 5 of 40ms frame included indicator.

If Reverse Link Attribute Adjustment Gain for Radio Configuration 3 or 5 of 40ms frame is included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

#### RL\_ATT\_ADJ\_GAIN-

\_19200\_40MS

- Reverse Link Attribute Adjustment Gain for the transmission rate 19200 bits/s.

1 If RC3\_RC5\_40MS\_INCL is set to '0', the base station shall  
 2 omit this field.

3 If RC3\_RC5\_40MS\_INCL is set to '1' and  
 4 RL\_ATT\_ADJ\_GAIN\_TYPE is set to '0', the base station shall  
 5 set this field to the value of the nominal attribute gain  
 6 adjustment that the mobile station is to make for the  
 7 transmission attributes with transmission rate 19200 bits/s,  
 8 and 40ms frame. The base station shall set the value in the  
 9 range from -48 to 48 inclusive.

10 If RC3\_RC5\_40MS\_INCL is set to '1' and  
 11 RL\_ATT\_ADJ\_GAIN\_TYPE is set to '1', the base station shall  
 12 set this field to the value of the pilot reference level  
 13 adjustment that the mobile station is to make for the  
 14 transmission attributes with transmission rate 19200 bits/s  
 15 and 40ms frame. ~~The base station shall set the value in the~~  
 16 ~~range from 0 to 63 inclusive.~~

17 The base station shall set this field to the correction factor  
 18 expressed as a two's complement value in units of 0.125 dB.

19    RL\_ATT\_ADJ\_GAIN-

20        \_38400\_40MS

- Reverse Link Attribute Adjustment Gain for the transmission rate 38400 bits/s.

22 If RC3\_RC5\_40MS\_INCL is set to '0', the base station shall  
 23 omit this field.

24 If RC3\_RC5\_40MS\_INCL is set to '1' and  
 25 RL\_ATT\_ADJ\_GAIN\_TYPE is set to '0', the base station shall  
 26 set this field to the value of the nominal attribute gain  
 27 adjustment that the mobile station is to make for the  
 28 transmission attributes with transmission rate 38400 bits/s,  
 29 and 40ms frame. The base station shall set the value in the  
 30 range from -48 to 48 inclusive.

31 If RC3\_RC5\_20MS\_INCL is set to '1' and  
 32 NORM\_ATT\_GAIN\_TYPE is set to '1', the base station shall set  
 33 this field to the value of the pilot reference level adjustment  
 34 that the mobile station is to make for the transmission  
 35 attributes with transmission rate 38400 bits/s and 40ms  
 36 frame. ~~The base station shall set the value in the range from~~  
 37 ~~0 to 63 inclusive.~~

38 The base station shall set this field to the correction factor  
 39 expressed as a two's complement value in units of 0.125 dB.

40    RL\_ATT\_ADJ\_GAIN-

41        \_76800\_40MS

- Reverse Link Attribute Adjustment Gain for the transmission rate 76800 bits/s.

43 If RC3\_RC5\_40MS\_INCL is set to '0', the base station shall  
 44 omit this field.

If RC3\_RC5\_40MS\_INCL is set to ‘1’ and RL\_ATT\_ADJ\_GAIN\_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 76800 bits/s, and 40ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If RC3\_RC5\_40MS\_INCL is set to ‘1’ and RL\_ATT\_ADJ\_GAIN\_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 76800 bits/s and 40ms frame. ~~The base station shall set the value in the range from 0 to 63 inclusive.~~

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

#### 17        RL\_ATT\_ADJ\_GAIN-

18            \_153600\_40MS

- Reverse Link Attribute Adjustment Gain for the transmission rate 153600 bits/s.

If RC3\_RC5\_40MS\_INCL is set to ‘0’, the base station shall omit this field.

If RC3\_RC5\_40MS\_INCL is set to ‘1’ and NORM\_ATT\_GAIN\_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 153600 bits/s, and 40ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If RC3\_RC5\_40MS\_INCL is set to ‘1’ and NORM\_ATT\_GAIN\_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 153600 bits/s and 40ms frame. ~~The base station shall set the value in the range from 0 to 63 inclusive.~~

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

#### 38        RL\_ATT\_ADJ\_GAIN-

39            \_307200\_40MS

- Reverse Link Attribute Adjustment Gain for the transmission rate 307200 bits/s.

If RC3\_RC5\_40MS\_INCL is set to ‘0’, the base station shall omit this field.

1        If RC3\_RC5\_40MS\_INCL is set to ‘1’ and  
 2        RL\_ATT\_ADJ\_GAIN\_TYPE is set to ‘0’, the base station shall  
 3        set this field to the value of the nominal attribute gain  
 4        adjustment that the mobile station is to make for the  
 5        transmission attributes with transmission rate 307200 bits/s,  
 6        and 40ms frame. The base station shall set the value in the  
 7        range from -48 to 48 inclusive.

8        If RC3\_RC5\_40MS\_INCL is set to ‘1’ and  
 9        RL\_ATT\_ADJ\_GAIN\_TYPE is set to ‘1’, the base station shall  
 10      set this field to the value of the pilot reference level  
 11      adjustment that the mobile station is to make for the  
 12      transmission attributes with transmission rate 307200 bits/s  
 13      and 40ms frame. ~~The base station shall set the value in the~~  
 14      ~~range from 0 to 63 inclusive.~~

15      The base station shall set this field to the correction factor  
 16      expressed as a two’s complement value in units of 0.125 dB.

17      RC4\_RC6\_40MS\_INCL

- Reverse Link Attribute Adjustment Gain for Radio Configuration 4 or 6 of 40ms frame included indicator.

19      If Reverse Link Attribute Adjustment Gain for Radio  
 20      Configuration 4 or 6 of 40ms frame is included in this  
 21      message, the base station shall set this field to ‘1’; otherwise,  
 22      the base station shall set this field to ‘0’.

23      RL\_ATT\_ADJ\_GAIN-

24      \_28800\_40MS

- Reverse Link Attribute Adjustment Gain for the transmission rate 28800 bits/s.

26      If RC4\_RC6\_40MS\_INCL is set to ‘0’, the base station shall  
 27      omit this field.

28      If RC4\_RC6\_40MS\_INCL is set to ‘1’ and  
 29      RL\_ATT\_ADJ\_GAIN\_TYPE is set to ‘0’, the base station shall  
 30      set this field to the value of the nominal attribute gain  
 31      adjustment that the mobile station is to make for the  
 32      transmission attributes with transmission rate 28800 bits/s,  
 33      and 40ms frame. The base station shall set the value in the  
 34      range from -48 to 48 inclusive.

35      If RC4\_RC6\_40MS\_INCL is set to ‘1’ and  
 36      NORM\_ATT\_GAIN\_TYPE is set to ‘1’, the base station shall set  
 37      this field to the value of the pilot reference level adjustment  
 38      that the mobile station is to make for the transmission  
 39      attributes with transmission rate 28800 bits/s and 40ms  
 40      frame. ~~The base station shall set the value in the range from~~  
 41      ~~0 to 63 inclusive.~~

42      The base station shall set this field to the correction factor  
 43      expressed as a two’s complement value in units of 0.125 dB.

44      RL\_ATT\_ADJ\_GAIN-

45      \_57600\_40MS

- Reverse Link Attribute Adjustment Gain for the transmission rate 57600 bits/s.

1           If RC4\_RC6\_40MS\_INCL is set to '0', the base station shall  
 2           omit this field.

3           If RC4\_RC6\_40MS\_INCL is set to '1' and  
 4           NORM\_ATT\_GAIN\_TYPE is set to '0', the base station shall set  
 5           this field to the value of the nominal attribute gain adjustment  
 6           that the mobile station is to make for the transmission  
 7           attributes with transmission rate 57600 bits/s, and 40ms  
 8           frame. The base station shall set the value in the range from  
 9           -48 to 48 inclusive.

10          If RC4\_RC6\_40MS\_INCL is set to '1' and  
 11         NORM\_ATT\_GAIN\_TYPE is set to '1', the base station shall set  
 12         this field to the value of the pilot reference level adjustment  
 13         that the mobile station is to make for the transmission  
 14         attributes with transmission rate 57600 bits/s and 40ms  
 15         frame. ~~The base station shall set the value in the range from~~  
 16         ~~0 to 63 inclusive.~~

17          The base station shall set this field to the correction factor  
 18          expressed as a two's complement value in units of 0.125 dB.

19         RL\_ATT\_ADJ\_GAIN-

20         \_115200\_40MS - Reverse Link Attribute Adjustment Gain for the transmission  
 21           rate 115200 bits/s.

22          If RC4\_RC6\_40MS\_INCL is set to '0', the base station shall  
 23          omit this field.

24          If RC4\_RC6\_40MS\_INCL is set to '1' and  
 25           RL\_ATT\_ADJ\_GAIN\_TYPE is set to '0', the base station shall  
 26           set this field to the value of the nominal attribute gain  
 27           adjustment that the mobile station is to make for the  
 28           transmission attributes with transmission rate 115200 bits/s,  
 29           and 40ms frame. The base station shall set the value in the  
 30           range from -48 to 48 inclusive.

31          If RC4\_RC6\_40MS\_INCL is set to '1' and  
 32           RL\_ATT\_ADJ\_GAIN\_TYPE is set to '1', the base station shall  
 33           set this field to the value of the pilot reference level  
 34           adjustment that the mobile station is to make for the  
 35           transmission attributes with transmission rate 115200 bits/s  
 36           and 40ms frame. ~~The base station shall set the value in the~~  
 37           ~~range from 0 to 63 inclusive.~~

38          The base station shall set this field to the correction factor  
 39          expressed as a two's complement value in units of 0.125 dB.

40         RL\_ATT\_ADJ\_GAIN-

41         \_230400\_40MS - Reverse Link Attribute Adjustment Gain for the transmission  
 42           rate 230400 bits/s.

43          If RC4\_RC6\_40MS\_INCL is set to '0', the base station shall  
 44          omit this field.

1        If RC4\_RC6\_40MS\_INCL is set to ‘1’ and  
 2        RL\_ATT\_ADJ\_GAIN\_TYPE is set to ‘0’, the base station shall  
 3        set this field to the value of the nominal attribute gain  
 4        adjustment that the mobile station is to make for the  
 5        transmission attributes with transmission rate 230400 bits/s,  
 6        and 40ms frame. The base station shall set the value in the  
 7        range from -48 to 48 inclusive.

8        If RC4\_RC6\_40MS\_INCL is set to ‘1’ and  
 9        RL\_ATT\_ADJ\_GAIN\_TYPE is set to ‘1’, the base station shall  
 10      set this field to the value of the pilot reference level  
 11      adjustment that the mobile station is to make for the  
 12      transmission attributes with transmission rate 230400 bits/s  
 13      and 40ms frame. ~~The base station shall set the value in the~~  
 14      ~~range from 0 to 63 inclusive.~~

15      The base station shall set this field to the correction factor  
 16      expressed as a two’s complement value in units of 0.125 dB.

17      RL\_ATT\_ADJ\_GAIN-

18      \_518400\_40MS

- Reverse Link Attribute Adjustment Gain for the transmission rate 518400 bits/s.

20      If RC4\_RC6\_40MS\_INCL is set to ‘0’, the base station shall  
 21      omit this field.

22      If RC4\_RC6\_40MS\_INCL is set to ‘1’ and  
 23      RL\_ATT\_ADJ\_GAIN\_TYPE is set to ‘0’, the base station shall  
 24      set this field to the value of the nominal attribute gain  
 25      adjustment that the mobile station is to make for the  
 26      transmission attributes with transmission rate 518400 bits/s,  
 27      and 40ms frame. The base station shall set the value in the  
 28      range from -48 to 48 inclusive.

29      If RC4\_RC6\_40MS\_INCL is set to ‘1’ and  
 30      RL\_ATT\_ADJ\_GAIN\_TYPE is set to ‘1’, the base station shall  
 31      set this field to the value of the pilot reference level  
 32      adjustment that the mobile station is to make for the  
 33      transmission attributes with transmission rate 518400 bits/s  
 34      and 40ms frame. ~~The base station shall set the value in the~~  
 35      ~~range from 0 to 63 inclusive.~~

36      The base station shall set this field to the correction factor  
 37      expressed as a two’s complement value in units of 0.125 dB.

38      RC3\_RC5\_80MS\_INCL

- Reverse Link Attribute Adjustment Gain for Radio Configuration 3 or 5 of 80ms frame included indicator.

40      If Reverse Link Attribute Adjustment Gain for Radio Configuration 3 or 5 of 80ms frame is included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

44      RL\_ATT\_ADJ\_GAIN-

45      \_19200\_80MS

- Reverse Link Attribute Adjustment Gain for the transmission rate 19200 bits/s.

1           If RC3\_RC5\_80MS\_INCL is set to '0', the base station shall  
 2           omit this field.

3           If RC3\_RC5\_80MS\_INCL is set to '1' and  
 4           RL\_ATT\_ADJ\_GAIN\_TYPE is set to '0', the base station shall  
 5           set this field to the value of the nominal attribute gain  
 6           adjustment that the mobile station is to make for the  
 7           transmission attributes with transmission rate 19200 bits/s,  
 8           and 80ms frame. The base station shall set the value in the  
 9           range from -48 to 48 inclusive.

10          If RC3\_RC5\_80MS\_INCL is set to '1' and  
 11         RL\_ATT\_ADJ\_GAIN\_TYPE is set to '1', the base station shall  
 12         set this field to the value of the pilot reference level  
 13         adjustment that the mobile station is to make for the  
 14         transmission attributes with transmission rate 19200 bits/s  
 15         and 80ms frame. ~~The base station shall set the value in the~~  
 16         ~~range from 0 to 63 inclusive.~~

17          The base station shall set this field to the correction factor  
 18          expressed as a two's complement value in units of 0.125 dB.

19        **RL\_ATT\_ADJ\_GAIN-**

20        **\_38400\_80MS**    - Reverse Link Attribute Adjustment Gain for the transmission  
 21           rate 38400 bits/s.

22          If RC3\_RC5\_80MS\_INCL is set to '0', the base station shall  
 23          omit this field.

24          If RC3\_RC5\_80MS\_INCL is set to '1' and  
 25           RL\_ATT\_ADJ\_GAIN\_TYPE is set to '0', the base station shall  
 26           set this field to the value of the nominal attribute gain  
 27           adjustment that the mobile station is to make for the  
 28           transmission attributes with transmission rate 38400 bits/s,  
 29           and 80ms frame. The base station shall set the value in the  
 30           range from -48 to 48 inclusive.

31          If RC3\_RC5\_80MS\_INCL is set to '1' and  
 32           NORM\_ATT\_GAIN\_TYPE is set to '1', the base station shall set  
 33           this field to the value of the pilot reference level adjustment  
 34           that the mobile station is to make for the transmission  
 35           attributes with transmission rate 38400 bits/s and 80ms  
 36           frame. ~~The base station shall set the value in the range from~~  
 37           ~~0 to 63 inclusive.~~

38          The base station shall set this field to the correction factor  
 39          expressed as a two's complement value in units of 0.125 dB.

40        **RL\_ATT\_ADJ\_GAIN-**

41        **\_76800\_80MS**    - Reverse Link Attribute Adjustment Gain for the transmission  
 42           rate 76800 bits/s.

43          If RC3\_RC5\_80MS\_INCL is set to '0', the base station shall  
 44          omit this field.

1        If RC3\_RC5\_80MS\_INCL is set to ‘1’ and  
 2        RL\_ATT\_ADJ\_GAIN\_TYPE is set to ‘0’, the base station shall  
 3        set this field to the value of the nominal attribute gain  
 4        adjustment that the mobile station is to make for the  
 5        transmission attributes with transmission rate 76800 bits/s,  
 6        and 80ms frame. The base station shall set the value in the  
 7        range from -48 to 48 inclusive.

8        If RC3\_RC5\_80MS\_INCL is set to ‘1’ and  
 9        RL\_ATT\_ADJ\_GAIN\_TYPE is set to ‘1’, the base station shall  
 10      set this field to the value of the pilot reference level  
 11      adjustment that the mobile station is to make for the  
 12      transmission attributes with transmission rate 76800 bits/s  
 13      and 80ms frame. ~~The base station shall set the value in the~~  
 14      ~~range from 0 to 63 inclusive.~~

15      The base station shall set this field to the correction factor  
 16      expressed as a two’s complement value in units of 0.125 dB.

17      RL\_ATT\_ADJ\_GAIN-

18      \_153600\_80MS

- Reverse Link Attribute Adjustment Gain for the transmission rate 153600 bits/s.

20      If RC3\_RC5\_80MS\_INCL is set to ‘0’, the base station shall  
 21      omit this field.

22      If RC3\_RC5\_80MS\_INCL is set to ‘1’ and  
 23      RL\_ATT\_ADJ\_GAIN\_TYPE is set to ‘0’, the base station shall  
 24      set this field to the value of the nominal attribute gain  
 25      adjustment that the mobile station is to make for the  
 26      transmission attributes with transmission rate 153600 bits/s,  
 27      and 80ms frame. The base station shall set the value in the  
 28      range from -48 to 48 inclusive.

29      If RC3\_RC5\_80MS\_INCL is set to ‘1’ and  
 30      RL\_ATT\_ADJ\_GAIN\_TYPE is set to ‘1’, the base station shall  
 31      set this field to the value of the pilot reference level  
 32      adjustment that the mobile station is to make for the  
 33      transmission attributes with transmission rate 153600 bits/s  
 34      and 80ms frame. ~~The base station shall set the value in the~~  
 35      ~~range from 0 to 63 inclusive.~~

36      The base station shall set this field to the correction factor  
 37      expressed as a two’s complement value in units of 0.125 dB.

38      RC4\_RC6\_80MS\_INCL

- Reverse Link Attribute Adjustment Gain for Radio Configuration 4 or 6 of 80ms frame included indicator.

40      If Reverse Link Attribute Adjustment Gain for Radio Configuration 4 or 6 of 80ms frame is included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

44      RL\_ATT\_ADJ\_GAIN-

45      \_28800\_80MS

- Reverse Link Attribute Adjustment Gain for the transmission rate 28800 bits/s.

1           If RC4\_RC6\_80MS\_INCL is set to '0', the base station shall  
 2           omit this field.

3           If RC4\_RC6\_80MS\_INCL is set to '1' and  
 4           RL\_ATT\_ADJ\_GAIN\_TYPE is set to '0', the base station shall  
 5           set this field to the value of the nominal attribute gain  
 6           adjustment that the mobile station is to make for the  
 7           transmission attributes with transmission rate 28800 bits/s,  
 8           and 80ms frame. The base station shall set the value in the  
 9           range from -48 to 48 inclusive.

10          If RC4\_RC6\_80MS\_INCL is set to '1' and  
 11          NORM\_ATT\_GAIN\_TYPE is set to '1', the base station shall set  
 12          this field to the value of the pilot reference level adjustment  
 13          that the mobile station is to make for the transmission  
 14          attributes with transmission rate 28800 bits/s and 80ms  
 15          frame. ~~The base station shall set the value in the range from~~  
 16          ~~0 to 63 inclusive.~~

17          The base station shall set this field to the correction factor  
 18          expressed as a two's complement value in units of 0.125 dB.

19        **RL\_ATT\_ADJ\_GAIN-**

20        **\_57600\_80MS**

21          - Reverse Link Attribute Adjustment Gain for the transmission  
           rate 57600 bits/s.

22          If RC4\_RC6\_80MS\_INCL is set to '0', the base station shall  
 23          omit this field.

24          If RC4\_RC6\_80MS\_INCL is set to '1' and  
 25          NORM\_ATT\_GAIN\_TYPE is set to '0', the base station shall set  
 26          this field to the value of the nominal attribute gain adjustment  
 27          that the mobile station is to make for the transmission  
 28          attributes with transmission rate 57600 bits/s, and 80ms  
 29          frame. The base station shall set the value in the range from  
 30          -48 to 48 inclusive.

31          If RC4\_RC6\_80MS\_INCL is set to '1' and  
 32          NORM\_ATT\_GAIN\_TYPE is set to '1', the base station shall set  
 33          this field to the value of the pilot reference level adjustment  
 34          that the mobile station is to make for the transmission  
 35          attributes with transmission rate 57600 bits/s and 80ms  
 36          frame. ~~The base station shall set the value in the range from~~  
 37          ~~0 to 63 inclusive.~~

38          The base station shall set this field to the correction factor  
 39          expressed as a two's complement value in units of 0.125 dB.

40        **RL\_ATT\_ADJ\_GAIN-**

41        **\_115200\_80MS**

42          - Reverse Link Attribute Adjustment Gain for the transmission  
           rate 115200 bits/s.

43          If RC4\_RC6\_80MS\_INCL is set to '0', the base station shall  
 44          omit this field.

1           If RC4\_RC6\_80MS\_INCL is set to '1' and  
 2           RL\_ATT\_ADJ\_GAIN\_TYPE is set to '0', the base station shall  
 3           set this field to the value of the nominal attribute gain  
 4           adjustment that the mobile station is to make for the  
 5           transmission attributes with transmission rate 115200 bits/s,  
 6           and 80ms frame. The base station shall set the value in the  
 7           range from -48 to 48 inclusive.

8           If RC4\_RC6\_80MS\_INCL is set to '1' and  
 9           RL\_ATT\_ADJ\_GAIN\_TYPE is set to '1', the base station shall  
 10          set this field to the value of the pilot reference level  
 11          adjustment that the mobile station is to make for the  
 12          transmission attributes with transmission rate 115200 bits/s  
 13          and 80ms frame. ~~The base station shall set the value in the~~  
 14          ~~range from 0 to 63 inclusive.~~

15          The base station shall set this field to the correction factor  
 16          expressed as a two's complement value in units of 0.125 dB.

17        **RL\_ATT\_ADJ\_GAIN-**

18        **\_259200\_80MS**

- Reverse Link Attribute Adjustment Gain for the transmission rate 259200 bits/s.

20          If RC4\_RC6\_80MS\_INCL is set to '0', the base station shall  
 21          omit this field.

22          If RC4\_RC6\_80MS\_INCL is set to '1' and  
 23           RL\_ATT\_ADJ\_GAIN\_TYPE is set to '0', the base station shall  
 24           set this field to the value of the nominal attribute gain  
 25           adjustment that the mobile station is to make for the  
 26           transmission attributes with transmission rate 259200 bits/s,  
 27           and 80ms frame. The base station shall set the value in the  
 28           range from -48 to 48 inclusive.

29          If RC4\_RC6\_80MS\_INCL is set to '1' and  
 30           RL\_ATT\_ADJ\_GAIN\_TYPE is set to '1', the base station shall  
 31           set this field to the value of the pilot reference level  
 32           adjustment that the mobile station is to make for the  
 33           transmission attributes with transmission rate 259200 bits/s  
 34           and 80ms frame. ~~The base station shall set the value in the~~  
 35           ~~range from 0 to 63 inclusive.~~

36          The base station shall set this field to the correction factor  
 37          expressed as a two's complement value in units of 0.125 dB.

38        **RESERVED**

- Reserved bits.

39          The base station shall add reserved bits as needed in order to  
 40          make the length of the entire record equal to an integer  
 41          number of octets. The base station shall set these bits to '0'.

## 1 3.7.3.3.2.26 Extended Neighbor List Update Message

2 MSG\_TAG: ENLUM

3

| Field              | Length (bits) |
|--------------------|---------------|
| PILOT_INC          | 4             |
| NGHBR_SRCH_MODE    | 2             |
| SRCH_WIN_N         | 4             |
| USE_TIMING         | 1             |
| GLOBAL_TIMING_INCL | 0 or 1        |
| GLOBAL_TX_DURATION | 0 or 4        |
| GLOBAL_TX_PERIOD   | 0 or 7        |
| NUM_NGHBR          | 6             |

NUM\_NGHBR occurrences of the following field:

|                   |        |
|-------------------|--------|
| NGHBR_PN          | 9      |
| SEARCH_PRIORITY   | 0 or 2 |
| SRCH_WIN_NGHBR    | 0 or 4 |
| TIMING_INCL       | 0 or 1 |
| NGHBR_TX_OFFSET   | 0 or 7 |
| NGHBR_TX_DURATION | 0 or 4 |
| NGHBR_TX_PERIOD   | 0 or 7 |

|                  |   |
|------------------|---|
| SRCH_OFFSET_INCL | 1 |
|------------------|---|

NUM\_NGHBR occurrences of the following record:

|                      |                            |
|----------------------|----------------------------|
| ADD_PILOT_REC_INCL   | 1                          |
| NGHBR_PILOT_REC_TYPE | 0 or 3                     |
| RECORD_LEN           | 0 or 3                     |
| Type-specific fields | 0 or $8 \times$ RECORD_LEN |
| SRCH_OFFSET_NGHBR    | 0 or 3                     |

4

- 5 PILOT\_INC - Pilot PN sequence offset index increment.  
 6 A mobile station searches for Remaining Set pilots at pilot PN  
 7 sequence index values that are multiples of this value.

The base station shall set this field to the pilot PN sequence increment, in units of 64 PN chips, that mobile stations are to use for searching the Remaining Set. The base station should set this field to the largest increment such that the pilot PN sequence offsets of all its neighbor base stations are integer multiples of that increment.

The base station shall set this field to a value in the range 1 to 15 inclusive.

- NGHBR\_SRCH\_MODE - Search mode.

The base station shall set this field to the value specified in Table 3.7.3.3.2.26-1 corresponding to the search mode.

**Table 3.7.3.3.2.26-1. NGHBR SRCH MODE Field**

| <b>Value<br/>(binary)</b> | <b>Description</b>                     |
|---------------------------|----------------------------------------|
| 00                        | No search priorities or search windows |
| 01                        | Search priorities                      |
| 10                        | Search windows                         |
| 11                        | Search windows and search priorities   |

- SRCH\_WIN\_N** - Default search window size for the Neighbor Set.

The base station shall set this field to the value specified in Table 2.6.6.2.1-1 corresponding to the default search window size to be used by the mobile station for its Neighbor Set. The mobile station uses the default search window size for all pilots in its Neighbor Set when the search window is not specified for each pilot individually (NGHBR\_SRCH\_MODE is set to a value other than '10' and '11').

- USE\_TIMING** - Use timing indicator.

If base station timing information is included for neighbor base stations, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.

- GLOBAL TIMING-

- \_INCL - Global timing included.

If USE\_TIMING is set to '1', the base station shall include the field GLOBAL\_TIMING\_INCL and set this field as described below; otherwise, the base station shall omit this field.

If base station timing information is included globally for all neighbor base stations with TIMING\_INCL equal to '1', the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.

- GLOBAL TX-

- 1            \_DURATION    -    Global neighbor transmit time duration.  
2  
3  
4  
5  
If GLOBAL\_TIMING\_INCL is included and is set to '1', the base  
station shall include the field GLOBAL\_TX\_DURATION and  
shall set this field as described below; otherwise, the base  
station shall omit this field.
- 6            The base station shall set this field to the duration of the base  
7            station transmit window, during each period, in units of 80  
8            ms. The base station should set this field to a value of 3 or  
9            greater.
- 10          GLOBAL\_TX-  
11          \_PERIOD    -    Global neighbor transmit time period.  
12  
13  
14  
15  
If GLOBAL\_TIMING\_INCL is included and is set to '1', the base  
station shall include the field GLOBAL\_TX\_PERIOD and shall  
set this field as described below; otherwise, the base station  
shall omit this field.
- 16          The base station shall set this field to duration of the period,  
17            in units of 80 ms.
- 18          NUM\_NGHBR    -    Number of neighbor pilot PN sequences.  
19  
20          The base station shall set this field to the number of  
neighbors included in the message.
- 21          The base station shall include one occurrence of the following record for each pilot that a  
22            mobile station is to place in its Neighbor Set
- 23          NGHBR\_PN    -    Neighbor pilot PN sequence offset index.  
24  
25  
26  
The base station shall include one occurrence of this field for  
each pilot in its neighbor list. The base station shall set this  
field to the pilot's PN sequence offset, in units of 64 PN chips.
- 27          SEARCH\_PRIORITY    -    Pilot Channel search priority.  
28  
29  
30  
31  
32  
33  
If NGHBR\_SRCH\_MODE is set to '01' or '11', then the base  
station shall set this field to the search priority for this  
neighbor. The base station shall set the search priority as  
specified in Table 3.7.3.3.2.26-2. If NGHBR\_SRCH\_MODE is  
set to any other value, the base station shall omit this field.

**Table 3.7.3.3.2.26-2. SEARCH\_PRIORITY Field**

| <b>Value<br/>(binary)</b> | <b>Search Priority</b> |
|---------------------------|------------------------|
| 00                        | Low                    |
| 01                        | Medium                 |
| 10                        | High                   |
| 11                        | Very High              |

- 1
- 2
- 3      SRCH\_WIN\_NGHBR    - Neighbor pilot channel search window size.  
4  
5      If NGHBR\_SRCH\_MODE is set to '10' or '11', then the base  
6      station shall set this field to the value specified in Table  
7      2.6.6.2.1-1 corresponding to the search window size to be  
8      used by the mobile stations for this neighbor. If  
9      NGHBR\_SRCH\_MODE is set to any other value, the base  
station shall omit this field.
- 10     TIMING\_INCL       - Timing included indicator.  
11     If USE\_TIMING is set to '1', the base station shall include the  
12    field TIMING\_INCL and set this field as described below;  
13    otherwise, the base station shall omit this field.  
14    If base station timing information is included for this neighbor  
15    base station, the base station shall set this field to '1';  
16    otherwise, the base station shall set this field to '0'.
- 17     NGHBR\_TX\_OFFSET   - Neighbor transmit time offset.  
18     If TIMING\_INCL is included and is set to '1', the base station  
19    shall include the field NGHBR\_TX\_OFFSET and set this field  
20    as described below; otherwise, the base station shall omit this  
field.  
21  
22    The base station shall set this field to the time offset, in units  
23    of 80 ms, from the beginning of the neighbor timing period to  
24    the beginning of the first base station transmit window within  
25    the period. The beginning of the neighbor timing period  
26    occurs when  $\lfloor t/4 \rfloor \bmod (16384) = 0$ .
- 27     NGHBR\_TX\_DURATION - Neighbor transmit time duration.  
28     If TIMING\_INCL is included and is set to '1' and  
29    GLOBAL\_TIMING\_INCL is set to '0', the base station shall  
30    include the field NGHBR\_TX\_DURATION and set this field as  
31    described below; otherwise, the base station shall omit this  
field.  
32  
33    The base station shall set this field to duration of the base  
34    station transmit window, during each period, in units of  
35    80 ms. The base station should set this field to a value of 3 or  
36    greater.
- 37     NGHBR\_TX\_PERIOD   - Neighbor transmit time period.

1                   If TIMING\_INCL is included and is set to ‘1’ and  
 2                   GLOBAL\_TIMING\_INCL is set to ‘0’, the base station shall  
 3                   include the field NGHBR\_TX\_PERIOD and set this field as  
 4                   described below; otherwise, the base station shall omit this  
 5                   field.

6                   The base station shall set this field to duration of the period,  
 7                   in units of 80 ms.

8     SRCH\_OFFSET\_INCL - Neighbor pilot channel search window offset included.

9                   If NGHBR\_SRCH\_MODE = ‘10’ or ‘11’ and if the  
 10                  SRCH\_OFFSET\_NGHBR field is included in the following  
 11                  records, the base station shall set this bit to ‘1’; otherwise, the  
 12                  base station shall set this bit to ‘0’.

13                  The base station shall include one occurrence of the following record for each pilot that a  
 14                  mobile station is to place in its Neighbor Set. The base station shall use the same order for  
 15                  the following record as is used for previous pilots which are listed in this message.  
 16                  Specifically, the  $i^{th}$  occurrence of the following record shall correspond the  $i^{th}$  pilot in this  
 17                  message.

18     ADD\_PILOT\_REC\_INCL - Additional pilot information included indicator.

19                  The base station shall set this field to ‘1’ if additional pilot  
 20                  information listed in NGHBR\_PILOT\_REC\_TYPE and  
 21                  RECORD\_LEN fields are included. The base station shall set  
 22                  this field to ‘0’ if the corresponding pilot is the common pilot  
 23                  and there is no additional pilot information included.

24     NGHBR\_PILOT-

25        \_REC\_TYPE - Neighbor Pilot record type

26                  If ADD\_PILOT\_REC\_INCL is set to ‘1’, the base station shall  
 27                  set this field to the NGHBR\_PILOT\_REC\_TYPE value shown in  
 28                  Table 3.7.2.3.2.22-5 corresponding to the type of Pilot Record  
 29                  specified by this record.

30                  If ADD\_PILOT\_REC\_INCL is set to ‘0’, the base station shall  
 31                  omit this field.

32        RECORD\_LEN - Pilot record length.

33                  If ADD\_PILOT\_REC\_INCL is set to ‘1’, the base station shall  
 34                  set this field to the number of octets in the type-specific fields  
 35                  of this pilot record.

36                  If ADD\_PILOT\_REC\_INCL is set to ‘0’, the base station shall  
 37                  omit this field.

38     Type-specific fields - Pilot record type-specific fields.

39                  If ADD\_PILOT\_REC\_INCL is set to ‘1’, the base station shall  
 40                  include type-specific fields based on the  
 41                  NGHBR\_PILOT\_REC\_TYPE of this pilot record.

42                  If ADD\_PILOT\_REC\_INCL is set to ‘0’, the base station shall  
 43                  omit this field.

1 If NGHBR\_PILOT\_REC\_TYPE is equal to '000', the base station shall include the following  
 2 fields:

3

| <b>Field</b>   | <b>Length (bits)</b> |
|----------------|----------------------|
| TD_POWER_LEVEL | 2                    |
| TD_MODE        | 2                    |
| RESERVED       | 4                    |

4

- 5 TD\_POWER\_LEVEL - TD Transmit Power Level.  
 6 The base station shall set this field to the TD transmit power  
 7 level relative to that of the Forward Pilot Channel as specified  
 8 in Table 3.7.2.3.2.26-4.
- 9 TD\_MODE - Transmit Diversity mode.  
 10 The base station shall set this field to the Transmit Diversity  
 11 mode, as specified in Table 3.7.2.3.2.26-3.
- 12 RESERVED - Reserved bits.  
 13 The base station shall set this field to '0000'.

14 If NGHBR\_PILOT\_REC\_TYPE is equal to '001', the base station shall include the following  
 15 fields:

| <b>Field</b>    | <b>Length (bits)</b> |
|-----------------|----------------------|
| QOF             | 2                    |
| WALSH_LENGTH    | 3                    |
| AUX_PILOT_WALSH | WALSH_LENGTH+6       |
| RESERVED        | 0 to 7 (as needed)   |

16

- 17 QOF - Quasi-orthogonal function index.  
 18 The base station shall set this field to the index of the Quasi-  
 19 orthogonal function (see Table 3.1.3.1.12-2 of [2]).
- 20 WALSH\_LENGTH - Length of the Walsh code.  
 21 The base station shall set this field to the WALSH\_LENGTH  
 22 value shown in Table 3.7.2.3.2.22-6 corresponding to the  
 23 length of the Walsh code for the pilot that is used in as the  
 24 Auxiliary Pilot.
- 25 AUX\_PILOT\_WALSH - Walsh code for the Auxiliary Pilot.  
 26 The base station shall set this field to the Walsh code  
 27 corresponding to the Auxiliary Pilot.
- 28 RESERVED - Reserved bits.

1                   The base station shall set all the bits of this field to '0' to make  
 2                   the entire record octet-aligned.

3       If NGHBR\_PILOT\_REC\_TYPE is equal to '010', the base station shall include the following  
 4       fields:

| <b>Field</b>       | <b>Length (bits)</b> |
|--------------------|----------------------|
| QOF                | 2                    |
| WALSH_LENGTH       | 3                    |
| AUX_WALSH          | WALSH_LENGTH+6       |
| AUX_TD_POWER_LEVEL | 2                    |
| TD_MODE            | 2                    |
| RESERVED           | 0 to 7 (as needed)   |

6  
 7                   QOF     - Quasi-orthogonal function index for the Auxiliary Transmit  
 8                   Diversity Pilot.

9                   The base station shall set this field to the index of the Quasi-  
 10                  orthogonal function (see Table 3.1.3.1.12-2 of [2]).

11                  WALSH\_LENGTH - Length of the Walsh code.

12                  The base station shall set this field to the WALSH\_LENGTH  
 13                  value shown in 3.7.2.3.2.22-6 corresponding to the length of  
 14                  the Walsh code for the pilots that are used as Auxiliary pilot  
 15                  in the transmit diversity mode.

16                  AUX\_WALSH - Walsh code for the Auxiliary Pilot.

17                  The base station shall set this field to the Walsh code  
 18                  corresponding to the Auxiliary Pilot.

19                  AUX\_TD-  
 20                  \_POWER\_LEVEL - Auxiliary Transmit Diversity Pilot power level.

21                  The base station shall set this field to the Auxiliary Transmit  
 22                  Diversity Pilot transmit power level relative to that of the  
 23                  Auxiliary Pilot as specified in Table 3.7.2.3.2.22-7.

24                  TD\_MODE - Transmit Diversity mode.

25                  The base station shall set this field to the Transmit Diversity  
 26                  mode, as specified in Table 3.7.2.3.2.26-3.

27                  RESERVED - Reserved bits.

28                  The base station shall set all the bits of this field to '0' to make  
 29                  the entire record octet-aligned.

30       If NGHBR\_PILOT\_REC\_TYPE is equal to '011', the base station shall include the following  
 31       fields:

| <b>Field</b>      | <b>Length (bits)</b> |
|-------------------|----------------------|
| SR3_PRIMARY_PILOT | 2                    |
| SR3_PILOT_POWER1  | 3                    |
| SR3_PILOT_POWER2  | 3                    |
| <b>RESERVED</b>   | <b>7</b>             |

- 1
- 2    SR3\_PRIMARY\_PILOT    – Primary SR3 pilot.  
   3    The base station shall set this field to the value shown in  
   4    Table 3.7.2.3.2.26-5 corresponding to the position of the  
   5    primary SR3 pilot.
- 6    SR3\_PILOT\_POWER1    – The primary SR3 pilot power level relative to that of the pilot  
   7    on the lower frequency of the two remaining SR3 frequencies.  
   8    The base station shall set this field to the value shown in  
   9    Table 3.7.2.3.2.26-6 corresponding to the power level of the  
 10   primary pilot with respect to the pilot on the lower frequency  
 11   of the two remaining SR3 frequencies.
- 12   SR3\_PILOT\_POWER2    – The primary SR3 pilot power level relative to that of the pilot  
 13   on the higher frequency of the two remaining SR3 frequencies.  
 14   The base station shall set this field to the value shown in  
 15   Table 3.7.2.3.2.26-6 corresponding to the power level of the  
 16   primary pilot with respect to the pilot on the higher frequency  
 17   of the two remaining SR3 frequencies.
- 18   **RESERVED**    Reserved bits.  
 19   **The base station shall set this field to '0000000'.**
- 20
- 21   If NGHBR\_PILOT\_REC\_TYPE is equal to '100', the base station shall include the following  
 22   fields:

| <b>Field</b>      | <b>Length (bits)</b>    |
|-------------------|-------------------------|
| SR3_PRIMARY_PILOT | 2                       |
| SR3_PILOT_POWER1  | 3                       |
| SR3_PILOT_POWER2  | 3                       |
| QOF               | 2                       |
| WALSH_LENGTH      | 3                       |
| AUX_PILOT_WALSH   | WALSH_LENGTH+6          |
| ADD_INFO_INCL1    | 1                       |
| QOF1              | 0 or 2                  |
| WALSH_LENGTH1     | 0 or 3                  |
| AUX_PILOT_WALSH1  | 0 or<br>WALSH_LENGTH1+6 |
| ADD_INFO_INCL2    | 1                       |
| QOF2              | 0 or 2                  |
| WALSH_LENGTH2     | 0 or 3                  |
| AUX_PILOT_WALSH2  | 0 or<br>WALSH_LENGTH2+6 |
| RESERVED          | 0 – 7 (as needed)       |

- 1      SR3\_PRIMARY\_PILOT      - Primary SR3 pilot.  
 2  
 3  
 4      The base station shall set this field to the value shown in  
       Table 3.7.2.3.2.26-5 corresponding to the position of the  
       primary SR3 pilot.
- 5      SR3\_PILOT\_POWER1      - The primary SR3 pilot power level relative to that of the pilot  
 6      on the lower frequency of the two remaining SR3 frequencies.  
 7  
 8      The base station shall set this field to the value shown in  
       Table 3.7.2.3.2.26-6 corresponding to the power level of the  
       primary pilot with respect to the pilot on the lower frequency  
       of the two remaining SR3 frequencies.
- 9  
 10     SR3\_PILOT\_POWER2     - The primary SR3 pilot power level relative to that of the pilot  
       on the higher frequency of the two remaining SR3 frequencies.  
 11  
 12     The base station shall set this field to the value shown in  
       Table 3.7.2.3.2.26-6 corresponding to the power level of the  
       primary pilot with respect to the pilot on the higher frequency  
       of the two remaining SR3 frequencies.
- 13  
 14     QOF      - Quasi-orthogonal function index.  
 15  
 16     The base station shall set this field to the index of the Quasi-  
       orthogonal function (see Table 3.1.3.1.12-2 of [2]) on the  
       frequency of the primary pilot.
- 17  
 18     WALSH\_LENGTH     - Length of the Walsh Code.

The base station shall set this field to the WALSH\_LENGTH value shown in Table 3.7.2.3.2.22-6 corresponding to the length of the Walsh code for the pilot that is used as the Auxiliary pilot on the frequency of the primary pilot.

- |                  |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|------------------|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AUX_PILOT_WALSH  | - | Walsh Code for the Auxiliary Pilot.<br><br>The base station shall set this field to the Walsh code corresponding to the Auxiliary pilot on the frequency of the primary pilot.                                                                                                                                                                                                                                                                                                                                     |
| ADD_INFO_INCL1   | - | Additional information included for the pilot on the lower frequency of the two remaining SR3 frequencies.<br><br>If the additional information for the pilot on the lower frequencies of the two remaining SR3 frequencies is the same as pilot on the primary frequency, the base station shall set this field to '0'; otherwise, the base station shall set this field to '1'.                                                                                                                                  |
| QOF1             | - | Quasi-orthogonal function index for the pilot on the lower frequency of the two remaining SR3 frequencies.<br><br>If ADD_INFO_INCL1 is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:<br><br>The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]) on the lower frequency of the two remaining SR3 frequencies.                                                                    |
| WALSH_LENGTH1    | - | Length of the Walsh Code for the pilot on the lower frequency of the two remaining SR3 frequencies.<br><br>If ADD_INFO_INCL1 is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:<br><br>The base station shall set this field to the WALSH_LENGTH value shown in Table 3.7.2.3.2.22-6 corresponding to the length of the Walsh code for the pilot that is used as the Auxiliary pilot on the lower frequency of the two remaining SR3 frequencies. |
| AUX_PILOT_WALSH1 | - | Walsh Code for the Auxiliary Pilot on the lower frequency of the two remaining SR3 frequencies.<br><br>If ADD_INFO_INCL1 is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:<br><br>The base station shall set this field to the Walsh code corresponding to the Auxiliary pilot on the lower frequency of the two remaining SR3 frequencies.                                                                                                      |
| ADD_INFO_INCL2   | - | Additional information included for the pilot on the higher frequency of the two remaining SR3 frequencies.                                                                                                                                                                                                                                                                                                                                                                                                        |

If the additional information for the pilot on the higher frequencies of the two remaining SR3 frequencies is the same as pilot on the primary frequency, the base station shall set this field to '0'; otherwise, the base station shall set this field to '1'.

- QOF2 - Quasi-orthogonal function index for the pilot on the higher frequency of the two remaining SR3 frequencies.

If ADD\_INFO\_INCL2 is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]) on the higher frequency of the two remaining SR3 frequencies.

- WALSH\_LENGTH2 - Length of the Walsh Code for the pilot on the higher frequency of the two remaining SR3 frequencies.

If ADD\_INFO\_INCL2 is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the WALSH\_LENGTH value shown in Table 3.7.2.3.2.22-6 corresponding to the length of the Walsh code for the pilot that is used as the Auxiliary pilot on the higher frequency of the two remaining SR3 frequencies.

- AUX\_PILOT\_WALSH2 - Walsh Code for the Auxiliary Pilot on the higher frequency of the two remaining SR3 frequencies.

If ADD\_INFO\_INCL2 is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the Walsh code corresponding to the Auxiliary pilot on the higher frequency of the two remaining SR3 frequencies.

- RESERVED - Reserved bits.

The base station shall set all the bits of this field to '0' to make the entire record octet-aligned.

- SRCH\_OFFSET\_NGHBR - Neighbor pilot channel search window offset.

If SRCH\_OFFSET\_INCL equals to '1', then the base station shall set this field to the value shown in Table 2.6.6.2.1-2 corresponding to the search window offset to be used by the mobile station for this neighbor; otherwise, the base station shall omit this field.

## 1    3.7.3.3.2.27 Candidate Frequency Search Request Message

2    MSG\_TAG: CFSRQM

3

| <b>Field</b>         | <b>Length (bits)</b>     |
|----------------------|--------------------------|
| USE_TIME             | 1                        |
| ACTION_TIME          | 6                        |
| RESERVED_1           | 4                        |
| CFSRM_SEQ            | 2                        |
| SEARCH_TYPE          | 2                        |
| SEARCH_PERIOD        | 4                        |
| SEARCH_MODE          | 4                        |
| MODE_SPECIFIC_LEN    | 8                        |
| Mode-specific fields | 8 ×<br>MODE_SPECIFIC_LEN |
| ALIGN_TIMING         | 1                        |
| SEARCH_OFFSET        | 0 or 6                   |

4

5    USE\_TIME    -    Use action time indicator.

6    This field indicates whether an explicit action time is specified  
7    in this message.8    If an explicit action time is specified in this message, the base  
9    station shall set this field to '1'; otherwise, the base station  
10   shall set this field to '0'.11   If the base station requests the mobile station to perform an  
12   aligned search (see 2.6.6.2.8.3), the base station shall specify  
13   an explicit action time for the message.

14   ACTION\_TIME    -    Action time.

15   If the USE\_TIME field is set to '1', the base station shall set  
16   this field to the System Time, in units of 80 ms (modulo 64),  
17   at which the message is to take effect. If the USE\_TIME field  
18   is set to '0' the base station shall set this field to '000000'.

19   RESERVED\_1    -    Reserved bits.

20   The base station shall set this field to '0000'.

21   CFSRM\_SEQ    -    *Candidate Frequency Search Request Message* sequence  
22   number.23   The base station shall set this field to the *Candidate*  
24   *Frequency Search Request Message* sequence number, as  
25   specified in 2.6.6.2.2.3.

- 1           SEARCH\_TYPE   -   Search command.  
 2  
 3  
 4  
 5  
 The base station shall set this field to the appropriate  
 SEARCH\_TYPE code from Table 3.7.3.3.2.27-1 to indicate the  
 purpose of the message.

**Table 3.7.3.3.2.27-1. SEARCH\_TYPE Codes**

| <b>SEARCH_TYPE<br/>(binary)</b> | <b>Meaning</b>                                                                                          |
|---------------------------------|---------------------------------------------------------------------------------------------------------|
| 00                              | Directs the mobile station to stop any periodic search in progress (see 2.6.6.2.8.3.4 and 2.6.6.2.10.4) |
| 01                              | Directs the mobile station to perform a single search (see 2.6.6.2.8.3.1 and 2.6.6.2.10.1).             |
| 11                              | Directs the mobile station to perform a periodic search (see 2.6.6.2.8.3.2 and 2.6.6.2.10.2).           |
| 10                              | Reserved.                                                                                               |

- 7  
 8           SEARCH\_PERIOD   -   Time between successive searches on the Candidate  
 9           Frequency for periodic searches.

10  
 11           The base station shall set this field to the SEARCH\_PERIOD  
 12           value shown in Table 2.6.6.2.8.3.2-1 corresponding to the  
 13           search period to be used by the mobile station, i.e., the time  
 14           between the beginning of successive searches on the  
 Candidate Frequency.

- 15           SEARCH\_MODE   -   Search mode.

16  
 17           The base station shall set this field to the SEARCH\_MODE  
 18           value specified in Table 3.7.3.3.2.27-2 corresponding to the  
 19           type of search specified by this message.

**Table 3.7.3.3.2.27-2. SEARCH\_MODE Types**

| <b>SEARCH_MODE<br/>(binary)</b> | <b>Description</b>                                 |
|---------------------------------|----------------------------------------------------|
| 0000                            | Searches for CDMA pilots on a Candidate Frequency. |
| 0001                            | Searches for analog channels.                      |
| 0010                            | Searches for Direct Spread (DS) neighbor cell.     |
| 0011-1111                       | Reserved                                           |

- 1    MODE\_SPECIFIC\_LEN    -    Length of mode-specific fields.  
 2                             The base station shall set this field to the number of octets in  
 3                             the mode-specific fields of this message.  
 4    Mode-specific fields    -    Search mode-specific fields.  
 5                             The base station shall include mode-specific fields based on  
 6                             the SEARCH\_MODE field.

7    If SEARCH\_MODE is equal to '0000', the base station shall include the following fields:

8

| <b>Field</b>          | <b>Length (bits)</b> |
|-----------------------|----------------------|
| BAND_CLASS            | 5                    |
| CDMA_FREQ             | 11                   |
| SF_TOTAL_EC_THRESH    | 5                    |
| SF_TOTAL_EC_IO_THRESH | 5                    |
| DIFF_RX_PWR_THRESH    | 5                    |
| MIN_TOTAL_PILOT_EC_IO | 5                    |
| CF_T_ADD              | 6                    |
| TF_WAIT_TIME          | 4                    |
| CF_PILOT_INC          | 4                    |
| CF_SRCH_WIN_N         | 4                    |
| CF_SRCH_WIN_R         | 4                    |
| RESERVED_2            | 5                    |
| PILOT_UPDATE          | 1                    |

If PILOT\_UPDATE is set to '1' the base station shall include the following record:

|                    |   |
|--------------------|---|
| NUM_PILOTS         | 6 |
| CF_NGHBR_SRCH_MODE | 2 |

If PILOT\_UPDATE is set to '1', the base station shall include NUM\_PILOTS occurrences of the following record:

|                 |        |
|-----------------|--------|
| NGHBR_PN        | 9      |
| SEARCH_SET      | 1      |
| SEARCH_PRIORITY | 0 or 2 |
| SRCH_WIN_NGHBR  | 0 or 4 |

If PILOT\_UPDATE is set to '1', the base station shall include the following field:

|                     |   |
|---------------------|---|
| CF_SRCH_OFFSET_INCL | 1 |
|---------------------|---|

9

(continues on next page)

1

| Field | Length (bits) |
|-------|---------------|
|-------|---------------|

If PILOT\_UPDATE is set to '1', the base station shall include NUM\_PILOTS occurrences of the following record:

|                      |                                    |
|----------------------|------------------------------------|
| ADD_PILOT_REC_INCL   | 1                                  |
| NGHBR_PILOT_REC_TYPE | 0 or 3                             |
| RECORD_LEN           | 0 or 3                             |
| Type-specific fields | 0 or $8 \times \text{RECORD\_LEN}$ |
| SRCH_OFFSET_NGHBR    | 0 or 3                             |

|            |                   |
|------------|-------------------|
| RESERVED_3 | 0 - 7 (as needed) |
|------------|-------------------|

2

- 3            BAND\_CLASS    - Band class.  
4                 The base station shall set this field to the CDMA band class of  
5                 the Candidate Frequency.
- 6            CDMA\_FREQ    - Frequency assignment.  
7                 The base station shall set this field to the CDMA frequency  
8                 assignment for the Candidate Frequency.
- 9            SF\_TOTAL\_EC-  
10            \_THRESH    - Serving Frequency total pilot  $E_c$  threshold.  
11                 If the mobile station is not to use the measurement of total  $E_c$   
12                 of the pilots in the Serving Frequency Active Set in the  
13                 Candidate Frequency periodic search procedure, the base  
14                 station shall set this field to '11111'; otherwise, the base  
15                 station shall set this field to  
16                  $\lceil (10 \times \log_{10} (\text{total\_ec\_thresh}) + 120) / 2 \rceil$   
17                 where *total\_ec\_thresh* is defined by the following rule: The  
18                 mobile station is not to visit the CDMA Candidate Frequency  
19                 to search for pilots if the total  $E_c$  of the pilots in the Serving  
20                 Frequency Active Set is greater than *total\_ec\_thresh*.
- 21            SF\_TOTAL\_EC-  
22            \_IO\_THRESH    - Serving Frequency total pilot  $E_c/I_o$  threshold.  
23                 If the mobile station is not to use the measurement of total  
24                  $E_c/I_o$  of the pilots in the Serving Frequency Active Set in the  
25                 Candidate Frequency periodic search procedure, the base  
26                 station shall set this field to '11111'; otherwise, the base  
27                 station shall set this field to  
28                  $\lfloor -20 \times \log_{10} (\text{total\_ec\_io\_thresh}) \rfloor$

1 where *total\_ec\_io\_thresh* is defined by the following rule: The  
 2 mobile station is not to visit the CDMA Candidate Frequency  
 3 to search for pilots if the total  $E_c/I_o$  of the pilots in the  
 4 Serving Frequency Active Set is greater than  
 5 *total\_ec\_io\_thresh*.

## 6 DIFF\_RX\_PWR-

- 7        \_THRESH    - Minimum difference in received power.  
 8        If this message is used for the Candidate Frequency single or  
 9        periodic search procedure:

10 If the mobile station is to search for pilots on the CDMA  
 11 Candidate Frequency irrespective of the received power on  
 12 the Candidate Frequency, the base station shall set this  
 13 field to '00000'; otherwise, the base station shall set this  
 14 field to

$$\lceil (minimum\_power\_diff + 30) / 2 \rceil$$

15 where *minimum\_power\_diff* is determined by the following  
 16 rule: The mobile station is not to search for pilots on the  
 17 CDMA Candidate Frequency if  $(cand\_freq\_pwr -$   
 18 *serving\_freq\_pwr*) is less than *minimum\_power\_diff* (in dB),  
 19 where *cand\_freq\_pwr* is the received power on the CDMA  
 20 Candidate Frequency, in dBm / 1.23 MHz, and  
 21 *serving\_freq\_pwr* is the received power on the Serving  
 22 Frequency, in dBm / 1.23 MHz.

- 23  
 24        If this message is used for the Hard Handoff with Return on  
 25        Failure procedure:

26        If the mobile station is to continue hard handoff  
 27        procedures irrespective of the received power on the Target  
 28        Frequency, the base station shall set this field to '00000';  
 29        otherwise, the base station shall set this field to

$$\lceil (minimum\_power\_diff + 30) / 2 \rceil$$

30  
 31        where *minimum\_power\_diff* is determined by the following  
 32        rule: The mobile station is to declare the handoff attempt  
 33        to be unsuccessful if  $(target\_freq\_pwr - serving\_freq\_pwr)$  is  
 34        less than *minimum\_power\_diff* (in dB), where  
 35        *target\_freq\_pwr* is the received power on the CDMA Target  
 36        Frequency, in dBm / 1.23 MHz, and *serving\_freq\_pwr* is  
 37        the received power on the Serving Frequency, in dBm /  
 38        1.23 MHz.

## 39 MIN\_TOTAL\_PILOT-

- 40        \_EC\_IO    - Minimum total pilot  $E_c/ I_o$ .

- 41        If this message is used for the Candidate Frequency periodic  
 42        search procedure:

1                   If the mobile station is to search for pilots on the CDMA  
 2                   Candidate Frequency irrespective of the strength of pilots  
 3                   in the Candidate Frequency Search Set, the base station  
 4                   shall set this field to '00000'; otherwise, the base station  
 5                   shall set this field to

$$\lfloor -20 \times \log_{10} \text{total pilot threshold} \rfloor$$

7                   where *total pilot threshold* is defined by the following rule:  
 8                   The mobile station is not to send the *Candidate Frequency*  
 9                   *Search Report Message* if the sum of  $E_c/I_o$  of all pilots in  
 10                  the mobile station's Candidate Frequency Search Set that  
 11                  measure above CF\_T\_ADD is less than  
 12                  *total pilot threshold*.

13                  If this message is used for the Hard Handoff with Return on  
 14                  Failure procedure:

15                  If the mobile station is to attempt to demodulate the  
 16                  Forward Traffic Channels irrespective of the strength of  
 17                  pilots in the Active Set, the base station shall set this field  
 18                  to '00000'; otherwise, the base station shall set this field to

$$\lfloor -20 \times \log_{10} \text{total pilot threshold} \rfloor$$

20                  where *total pilot threshold* is defined by the following rule:  
 21                  The mobile station is not to attempt to demodulate the  
 22                  Forward Traffic Channels if the sum of  $E_c/I_o$  of all pilots  
 23                  in the mobile station's Active Set is less than  
 24                  *total pilot threshold*.

- |    |              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 25 | CF_T_ADD     | - Pilot detection threshold for the CDMA Candidate Frequency.<br><br>This value is used by the mobile station to trigger the sending of the <i>Candidate Frequency Search Report Message</i> during a periodic search of the CDMA Candidate Frequency (see 2.6.6.2.8.3.2).<br><br>The base station shall set this field to the pilot detection threshold, expressed as an unsigned binary number equal to $\lfloor -2 \times 10 \times \log_{10} E_c/I_o \rfloor$ . |
| 33 | TF_WAIT_TIME | - The total maximum wait time on the CDMA Target Frequency.<br><br>The base station shall set this field to the maximum wait time, in units of 80 ms, that the mobile station is to spend waiting for a period of ( $N_{11m} \times 20$ ) ms with sufficient signal quality (e.g. good frames) on the CDMA Target Frequency.                                                                                                                                        |
| 38 | CF_PILOT_INC | - Pilot PN sequence offset index increment to be used on the CDMA Candidate Frequency after handoff.                                                                                                                                                                                                                                                                                                                                                                |

The base station shall set this field to the pilot PN sequence increment, in units of 64 PN chips, that the mobile station is to use for searching the Remaining Set, after a handoff to the CDMA Candidate Frequency is successfully completed. The base station should set this field to the largest increment such that the pilot PN sequence offsets of all its neighbor base stations are integer multiples of that increment.

- Default search window size for the Candidate Frequency Search Set.

The base station shall set this field to the value specified in Table 2.6.6.2.1-1 corresponding to the default search window size to be used by the mobile station for its Candidate Frequency Neighbor\_Search Set. The mobile station uses the default search window size for all pilots in its Candidate Frequency Neighbor\_Search Set when the search window has not been specified for each pilot individually.

- Search window size for the Remaining Set on the CDMA Candidate Frequency.

The base station shall set this field to the window size parameter shown in Table 2.6.6.2.1-1 corresponding to the number of PN chips that the mobile station is to search for pilots in the Remaining Set on the CDMA Candidate Frequency after a handoff is successfully completed.

- Reserved bits.

The base station shall set this field to '00000'.

- Pilot search parameter update indicator.

If the mobile station is to change its pilot search parameters, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.

- Number of pilots included in the message.

The base station shall set this field to the number of the CDMA Candidate Frequency pilots included in this message. The base station shall set this field to a value from 0 to N8m, inclusive.

- Search made for Candidate Frequency Search Set

The base station shall set this field to the value shown in Table 3.7.3.3.2.27.3 corresponding to the search mode.

1  
Table 3.7.3.3.2.27-3. CF\_NGHBR\_SRCH\_MODE Field

| Value<br>(binary) | Description                                      |
|-------------------|--------------------------------------------------|
| 00                | No search priorities or search windows specified |
| 01                | Search priorities specified                      |
| 10                | Search windows specified                         |
| 11                | Search windows and search priorities specified   |

2  
3 The base station shall include NUM\_PILOTS occurrences of the following four-field record,  
4 one for each included CDMA Candidate Frequency pilot.

5 NGHBR\_PN - Neighbor pilot PN sequence offset index.  
6 The base station shall set this field to the pilot's PN sequence  
7 offset, in units of 64 PN chips.

8 SEARCH\_SET - Flag to indicate if the corresponding pilot is to be searched.  
9 The base station shall set this field to '1' if the mobile station  
10 should add the corresponding pilot to its Candidate Frequency  
11 Search Set; otherwise, the base station shall set this field to  
12 '0'.

13 SEARCH\_PRIORITY - Pilot Channel search priority.  
14 If CF\_NGHBR\_SRCH\_MODE is set to '01' or '11', then the base  
15 station shall set this field to the search priority for this  
16 neighbor. The base station shall set the search priority as  
17 specified in Table 3.7.3.3.2.26-2. If CF\_NGHBR\_SRCH\_MODE  
18 is set to any other value, the base station shall omit this field.

19 SRCH\_WIN\_NGHBR - Neighbor pilot channel search window size.  
20 If CF\_NGHBR\_SRCH\_MODE is set to '10' or '11', then the base  
21 station shall set this field to the value specified in  
22 Table 2.6.6.2.1-1 corresponding to the search window size to  
23 be used by mobile stations for this neighbor. If the  
24 CF\_NGHBR\_SRCH\_MODE is set to any other value, the base  
25 station shall omit this field.

26 CF\_SRCH\_OFFSET\_INCL - Neighbor pilot channel search window offset included.  
27 If PILOT\_UPDATE is set to '0', the base station shall omit this  
28 field; otherwise, the base station shall include this field and  
29 set it as follows:

30 If CF\_NGHBR\_SRCH\_MODE is set to '10' or '11' and if  
31 SRCH\_OFFSET\_NGHBR is included in the message, the base  
32 station shall set this bit to '1'; otherwise, the base station  
33 shall set this bit to '0'.

34 If PILOT\_UPDATE is set to '1', the base station shall include NUM\_PILOTS occurrences of  
35 the following four-field record, one for each included CDMA Candidate Frequency Pilot.

36 ADD\_PILOT\_REC\_INCL - Additional pilot information included indicator.

The base station shall set this field to '1' if additional pilot information listed in NGHBR\_PILOT\_REC\_TYPE and RECORD\_LEN fields are included. The base station shall set this field to '0' if the corresponding pilot is the common pilot and there is no additional pilot information included.

NGHBR\_PILOT-

\_REC\_TYPE

- Neighbor Pilot record type

If ADD\_PILOT\_REC\_INCL is set to '1', the base station shall set this field to the NGHBR\_PILOT\_REC\_TYPE value shown in Table 3.7.2.3.2.22-5 corresponding to the type of Pilot Record specified by this record.

If ADD\_PILOT\_REC\_INCL is set to '0', the base station shall omit this field.

14 RECORD\_LEN

- Pilot record length.

If ADD\_PILOT\_REC\_INCL is set to '1', the base station shall set this field to the number of octets in the type-specific fields of this pilot record.

If ADD\_PILOT\_REC\_INCL is set to '0', the base station shall omit this field.

20 Type-specific fields

- Pilot record type-specific fields.

If ADD\_PILOT\_REC\_INCL is set to '1', the base station shall include type-specific fields based on the NGHBR\_PILOT\_REC\_TYPE of this pilot record.

If ADD\_PILOT\_REC\_INCL is set to '0', the base station shall omit this field.

If NGHBR\_PILOT\_REC\_TYPE is equal to '000', the base station shall include the following fields:

| <b>Field</b>   | <b>Length (bits)</b> |
|----------------|----------------------|
| TD_POWER_LEVEL | 2                    |
| TD_MODE        | 2                    |
| RESERVED       | 4                    |

29

### TD POWER LEVEL

- TD Transmit Power Level.

The base station shall set this field to the TD transmit power level relative to that of the Forward Pilot Channel as specified in Table 3.7.2.3.2.26-4.

34 TD\_MODE

- Transmit Diversity mode.

The base station shall set this field to the Transmit Diversity mode, as specified in Table 3.7.2.3.2.26-3.

37 RESERVED

- Reserved bits.

1                   The base station shall set these bits to '0000'.

2       If NGHBR\_PILOT\_REC\_TYPE is equal to '001', the base station shall include the following  
3       fields:

| <b>Field</b>    | <b>Length (bits)</b> |
|-----------------|----------------------|
| QOF             | 2                    |
| WALSH_LENGTH    | 3                    |
| AUX_PILOT_WALSH | WALSH_LENGTH+6       |
| RESERVED        | 0 to 7 (as needed)   |

4

5       QOF     - Quasi-orthogonal function index.

6                   The base station shall set this field to the index of the Quasi-  
7                   orthogonal function (see Table 3.1.3.1.12-2 of [2]).

8       WALSH\_LENGTH     - Length of the Walsh code.

9                   The base station shall set this field to the WALSH\_LENGTH  
10                  value shown in Table 3.7.2.3.2.22-6 corresponding to the  
11                  length of the Walsh code for the pilot that is used in as the  
12                  Auxiliary pilot.

13      AUX\_PILOT\_WALSH     - Walsh code for the Auxiliary Pilot.

14                   The base station shall set this field to the Walsh code  
15                  corresponding to the Auxiliary Pilot.

16      RESERVED     - Reserved bits.

17                   The base station shall set all the bits of this field to '0' to make  
18                  the entire record octet-aligned.

19       If NGHBR\_PILOT\_REC\_TYPE is equal to '010', the base station shall include the following  
20       fields:

| <b>Field</b>       | <b>Length (bits)</b> |
|--------------------|----------------------|
| QOF                | 2                    |
| WALSH_LENGTH       | 3                    |
| AUX_WALSH          | WALSH_LENGTH+6       |
| AUX_TD_POWER_LEVEL | 2                    |
| TD_MODE            | 2                    |
| RESERVED           | 0 to 7 (as needed)   |

22

23       QOF     - Quasi-orthogonal function index for the Auxiliary Transmit  
24                  Diversity Pilot.

25                   The base station shall set this field to the index of the Quasi-  
26                  orthogonal function (see Table 3.1.3.1.12-2 of [2]).

- 1           WALSH\_LENGTH    - Length of the Walsh code.  
 2                             The base station shall set this field to the WALSH\_LENGTH  
 3                             value shown in 3.7.2.3.2.22-6 corresponding to the length of  
 4                             the Walsh code for the pilots that are used as Auxiliary pilot  
 5                             in the transmit diversity mode.
- 6           AUX\_WALSH      - Walsh code for the Auxiliary Pilot.  
 7                             The base station shall set this field to the Walsh code  
 8                             corresponding to the Auxiliary Pilot.
- 9           AUX\_TD-  
 10          \_POWER\_LEVEL    - Auxiliary Transmit Diversity Pilot power level.  
 11                             The base station shall set this field to the Auxiliary Transmit  
 12                             Diversity Pilot transmit power level relative to that of the  
 13                             Auxiliary Pilot as specified in Table 3.7.2.3.2.22-7.
- 14          TD\_MODE        - Transmit Diversity mode.  
 15                             The base station shall set this field to the Transmit Diversity  
 16                             mode, as specified in Table 3.7.2.3.2.26-3.
- 17          RESERVED        - Reserved bits.  
 18                             The base station shall set all the bits of this field to '0' to make  
 19                             the entire record octet-aligned.

20       If NGHBR\_PILOT\_REC\_TYPE is equal to '011', the base station shall include the following  
 21       fields:

| <b>Field</b>      | <b>Length (bits)</b> |
|-------------------|----------------------|
| SR3_PRIMARY_PILOT | 2                    |
| SR3_PILOT_POWER1  | 3                    |
| SR3_PILOT_POWER2  | 3                    |

- 22  
 23       SR3\_PRIMARY\_PILOT    - Primary SR3 pilot.  
 24                             The base station shall set this field to the value shown in  
 25                             Table 3.7.2.3.2.26-5 corresponding to the position of the  
 26                             primary SR3 pilot.
- 27       SR3\_PILOT\_POWER1    - The primary SR3 pilot power level relative to that of the pilot  
 28                             on the lower frequency of the two remaining SR3 frequencies.  
 29                             The base station shall set this field to the value shown in  
 30                             Table 3.7.2.3.2.26-6 corresponding to the power level of the  
 31                             primary pilot with respect to the pilot on the lower frequency  
 32                             of the two remaining SR3 frequencies.
- 33       SR3\_PILOT\_POWER2    - The primary SR3 pilot power level relative to that of the pilot  
 34                             on the higher frequency of the two remaining SR3 frequencies.  
 35                             The base station shall set this field to the value shown in  
 36                             Table 3.7.2.3.2.26-6 corresponding to the power level of the  
 37                             primary pilot with respect to the pilot on the higher frequency  
 38                             of the two remaining SR3 frequencies.

1 | **RESERVED**      Reserved bits.

2 | ~~The base station shall set this field to ‘0000000’.~~

3 |  
4 | If NGHBR\_PILOT\_REC\_TYPE is equal to ‘100’, the base station shall include the following  
5 | fields:

| <b>Field</b>      | <b>Length (bits)</b>    |
|-------------------|-------------------------|
| SR3_PRIMARY_PILOT | 2                       |
| SR3_PILOT_POWER1  | 3                       |
| SR3_PILOT_POWER2  | 3                       |
| QOF               | 2                       |
| WALSH_LENGTH      | 3                       |
| AUX_PILOT_WALSH   | WALSH_LENGTH+6          |
| ADD_INFO_INCL1    | 1                       |
| QOF1              | 0 or 2                  |
| WALSH_LENGTH1     | 0 or 3                  |
| AUX_PILOT_WALSH1  | 0 or<br>WALSH_LENGTH1+6 |
| ADD_INFO_INCL2    | 1                       |
| QOF2              | 0 or 2                  |
| WALSH_LENGTH2     | 0 or 3                  |
| AUX_PILOT_WALSH2  | 0 or<br>WALSH_LENGTH2+6 |
| RESERVED          | 0 – 7 (as needed)       |

- 6 | SR3\_PRIMARY\_PILOT    - Primary SR3 pilot.  
7 |  
8 | The base station shall set this field to the value shown in  
9 | Table 3.7.2.3.2.26-5 corresponding to the position of the  
primary SR3 pilot.
- 10 | SR3\_PILOT\_POWER1    - The primary SR3 pilot power level relative to that of the pilot  
11 | on the lower frequency of the two remaining SR3 frequencies.  
12 |  
13 | The base station shall set this field to the value shown in  
14 | Table 3.7.2.3.2.26-6 corresponding to the power level of the  
15 | primary pilot with respect to the pilot on the lower frequency  
of the two remaining SR3 frequencies.
- 16 | SR3\_PILOT\_POWER2    - The primary SR3 pilot power level relative to that of the pilot  
17 | on the higher frequency of the two remaining SR3 frequencies.  
18 |  
19 | The base station shall set this field to the value shown in  
20 | Table 3.7.2.3.2.26-6 corresponding to the power level of the  
21 | primary pilot with respect to the pilot on the higher frequency  
of the two remaining SR3 frequencies.

- 1                   QOF     - Quasi-orthogonal function index.  
 2                   The base station shall set this field to the index of the Quasi-  
 3                   orthogonal function (see Table 3.1.3.1.12-2 of [2]) on the  
 4                   frequency of the primary pilot.
- 5                   WALSH\_LENGTH     - Length of the Walsh Code.  
 6                   The base station shall set this field to the WALSH\_LENGTH  
 7                   value shown in Table 3.7.2.3.2.22-6 corresponding to the  
 8                   length of the Walsh code for the pilot that is used as the  
 9                   Auxiliary pilot on the frequency of the primary pilot.
- 10                  AUX\_PILOT\_WALSH     - Walsh Code for the Auxiliary Pilot.  
 11                  The base station shall set this field to the Walsh code  
 12                  corresponding to the Auxiliary pilot on the frequency of the  
 13                  primary pilot.
- 14                  ADD\_INFO\_INCL1     - Additional information included for the pilot on the lower  
 15                  frequency of the two remaining SR3 frequencies.  
 16                  If the additional information for the pilot on the lower  
 17                  frequencies of the two remaining SR3 frequencies is the same  
 18                  as pilot on the primary frequency, the base station shall set  
 19                  this field to '0'; otherwise, the base station shall set this field  
 20                  to '1'.
- 21                  QOF1     - Quasi-orthogonal function index for the pilot on the lower  
 22                  frequency of the two remaining SR3 frequencies.  
 23                  If ADD\_INFO\_INCL1 is set to '0', the base station shall omit  
 24                  this field; otherwise, the base station shall set this field as  
 25                  follows:  
 26                  The base station shall set this field to the index of the Quasi-  
 27                  orthogonal function (see Table 3.1.3.1.12-2 of [2]) on the lower  
 28                  frequency of the two remaining SR3 frequencies.
- 29                  WALSH\_LENGTH1     - Length of the Walsh Code for the pilot on the lower frequency  
 30                  of the two remaining SR3 frequencies.  
 31                  If ADD\_INFO\_INCL1 is set to '0', the base station shall omit  
 32                  this field; otherwise, the base station shall set this field as  
 33                  follows:  
 34                  The base station shall set this field to the WALSH\_LENGTH  
 35                  value shown in Table 3.7.2.3.2.22-6 corresponding to the  
 36                  length of the Walsh code for the pilot that is used as the  
 37                  Auxiliary pilot on the lower frequency of the two remaining  
 38                  SR3 frequencies.
- 39                  AUX\_PILOT\_WALSH1     - Walsh Code for the Auxiliary Pilot on the lower frequency of  
 40                  the two remaining SR3 frequencies.  
 41                  If ADD\_INFO\_INCL1 is set to '0', the base station shall omit  
 42                  this field; otherwise, the base station shall set this field as  
 43                  follows:  
 44                  The base station shall set this field to the Walsh code  
 45                  corresponding to the Auxiliary pilot on the lower frequency of  
 46                  the two remaining SR3 frequencies.

- 1           ADD\_INFO\_INCL2   - Additional information included for the pilot on the higher  
 2           frequency of the two remaining SR3 frequencies.
- 3           If the additional information for the pilot on the higher  
 4           frequencies of the two remaining SR3 frequencies is the same  
 5           as pilot on the primary frequency, the base station shall set  
 6           this field to '0'; otherwise, the base station shall set this field  
 7           to '1'.
- 8           QOF2   - Quasi-orthogonal function index for the pilot on the higher  
 9           frequency of the two remaining SR3 frequencies.
- 10          If ADD\_INFO\_INCL2 is set to '0', the base station shall omit  
 11         this field; otherwise, the base station shall set this field as  
 12         follows:
- 13          The base station shall set this field to the index of the Quasi-  
 14           orthogonal function (see Table 3.1.3.1.12-2 of [2]) on the  
 15           higher frequency of the two remaining SR3 frequencies.
- 16          WALSH\_LENGTH2   - Length of the Walsh Code for the pilot on the higher frequency  
 17           of the two remaining SR3 frequencies.
- 18          If ADD\_INFO\_INCL2 is set to '0', the base station shall omit  
 19         this field; otherwise, the base station shall set this field as  
 20         follows:
- 21          The base station shall set this field to the WALSH\_LENGTH  
 22           value shown in Table 3.7.2.3.2.22-6 corresponding to the  
 23           length of the Walsh code for the pilot that is used as the  
 24           Auxiliary pilot on the higher frequency of the two remaining  
 25           SR3 frequencies.
- 26          AUX\_PILOT\_WALSH2   - Walsh Code for the Auxiliary Pilot on the higher frequency of  
 27           the two remaining SR3 frequencies.
- 28          If ADD\_INFO\_INCL2 is set to '0', the base station shall omit  
 29         this field; otherwise, the base station shall set this field as  
 30         follows:
- 31          The base station shall set this field to the Walsh code  
 32           corresponding to the Auxiliary pilot on the higher frequency of  
 33           the two remaining SR3 frequencies.
- 34          RESERVED   - Reserved bits.
- 35          The base station shall set all the bits of this field to '0' to make  
 36           the entire record octet-aligned.
- 37          SRCH\_OFFSET\_NGHBR   - Neighbor pilot channel search window offset.
- 38          If CF\_SRCH\_OFFSET\_INCL is included and equals to '1', then  
 39           the base station shall set this field to the value specified in  
 40           Table 2.6.6.2.1-2 corresponding to the search window offset to  
 41           be used by the mobile station for this neighbor; otherwise, the  
 42           base station shall omit this field.
- 43          RESERVED\_3   - Reserved bits.
- 44          The base station shall add reserved bits as needed in order to  
 45           make the length of the Mode-specific fields equal to an integer  
 46           number of octets. The base station shall set these bits to '0'.

1 If SEARCH\_MODE is equal to '0001', the base station shall include the following fields:

2

| Field                 | Length (bits) |
|-----------------------|---------------|
| BAND_CLASS            | 5             |
| SF_TOTAL_EC_THRESH    | 5             |
| SF_TOTAL_EC_IO_THRESH | 5             |
| RESERVED_4            | 6             |
| NUM_ANALOG_FREQS      | 3             |

NUM\_ANALOG\_FREQS occurrences of the following record:

|             |    |
|-------------|----|
| ANALOG_FREQ | 11 |
|-------------|----|

|            |     |
|------------|-----|
| RESERVED_5 | 0-7 |
|------------|-----|

3

4

BAND\_CLASS - Band class.

5

6

7

The base station shall set this field to the CDMA band class associated with the analog frequencies included in this message.

8

9

SF\_TOTAL\_EC-\_THRESH - Serving Frequency total pilot E<sub>C</sub> threshold.

10

11

12

13

14

If the mobile station is not to use the measurement of total E<sub>C</sub> of the pilots in the Serving Frequency Active Set in the Analog Frequencies periodic search procedure, the base station shall set this field to '11111'; otherwise, the base station shall set this field to

$$\lceil (10 \times \log_{10} (total\_ec\_thresh) + 120) / 2 \rceil$$

15

16

17

18

19

where *total\_ec\_thresh* is defined by the following rule: The mobile station is not to visit any analog frequency if the total E<sub>C</sub> of the pilots in the Serving Frequency Active Set is greater than *total\_ec\_thresh*.

20

21

SF\_TOTAL\_EC-\_IO\_THRESH - Serving Frequency total pilot E<sub>C</sub>/I<sub>O</sub> threshold.

22

23

24

25

26

If the mobile station is not to use the measurement of total E<sub>C</sub>/I<sub>O</sub> of the pilots in the Serving Frequency Active Set in the Analog Frequencies periodic search procedure, the base station shall set this field to '11111'; otherwise, the base station shall set this field to

$$\lfloor -20 \times \log_{10} (total\_ec\_io\_thresh) \rfloor$$

27

where *total\_ec\_io\_thresh* is defined by the following rule: The mobile station is not to visit any analog frequency if the total  $E_c/I_o$  of the pilots in the Serving Frequency Active Set is greater than *total\_ec\_io\_thresh*.

- |              |                                                                                                                                                                                                          |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RESERVED_4   | - Reserved bits.<br>The base station shall set this field to '000000'.                                                                                                                                   |
| ANALOG_FREQS | - Number of analog frequencies.<br>The base station shall set this field to the number of neighbors on the candidate frequency. The base station shall set this field to a value from 1 to 7, inclusive. |

The message will include NUM\_ANALOG\_FREQS occurrences of the following one-field record, one for each neighbor on the candidate frequency.

- |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ANALOG_FREQ   | <ul style="list-style-type: none"><li>- Analog frequency channel number.<br/>The base station shall set this field to the analog frequency channel number to search.</li></ul>                                                                                                                                                                                                                                                                                   |
| RESERVED_5    | <ul style="list-style-type: none"><li>- Reserved bits.<br/>The base station shall add reserved bits as needed in order to make the length of the Mode-specific fields equal to an integer number of octets. The base station shall set these bits to '0'.</li></ul>                                                                                                                                                                                              |
| ALIGN_TIMING  | <ul style="list-style-type: none"><li>- Align timing indicator.<br/>If the base station requests that the mobile station offset the start of the first search from the action time of this message (or of a subsequent <i>Candidate Frequency Search Control Message</i> that starts a search) by a delay specified by the SEARCH_OFFSET field, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.</li></ul> |
| SEARCH_OFFSET | <ul style="list-style-type: none"><li>- Search offset.<br/>If the ALIGN_TIMING field is set to '0', the base station shall omit this field; otherwise, the base station shall include this field and set it to</li></ul>                                                                                                                                                                                                                                         |

where *search\_offset\_time* is the time offset, in seconds, of the start of the first search from the action time of this message (or of a subsequent *Candidate Frequency Search Control Message* that starts a search).

## 1    3.7.3.3.2.28 Candidate Frequency Search Control Message

2    MSG\_TAG: CFSCNM

3

| <b>Field</b> | <b>Length (bits)</b> |
|--------------|----------------------|
| USE_TIME     | 1                    |
| ACTION_TIME  | 6                    |
| CFSCM_SEQ    | 2                    |
| SEARCH_TYPE  | 2                    |
| ALIGN_TIMING | 1                    |

4

5    USE\_TIME    -    Use action time indicator.

6    This field indicates whether an explicit action time is specified  
7    in this message.8    If an explicit action time is specified in this message, the base  
9    station shall set this field to '1'; otherwise, the base station  
10   shall set this field to '0'.11   If the base station requests the mobile station to perform an  
12   aligned search (see 2.6.6.2.8.3), the base station shall specify  
13   an explicit action time for the message.

14   ACTION\_TIME    -    Action time.

15   If the USE\_TIME field is set to '1', the base station shall set  
16   this field to the System Time, in units of 80 ms (modulo 64),  
17   at which the message is to take effect. If the USE\_TIME field  
18   is set to '0' the base station shall set this field to '000000'.19   CFSCM\_SEQ    -    *Candidate Frequency Search Control Message* sequence  
20   number.21   The base station shall set this field to the *Candidate*  
22   *Frequency Search Control Message* sequence number, as  
23   specified in 3.6.6.2.2.5.

24   SEARCH\_TYPE    -    Search command.

25   The base station shall set this field to the appropriate  
26   SEARCH\_TYPE code from Table 3.7.3.3.2.27-1 to indicate the  
27   purpose of the message.

28   ALIGN\_TIMING    -    Align timing indicator.

29   If the base station requests that the mobile station offset the  
30   start of the first search from the action time of this message  
31   by a delay specified by the SEARCH\_OFFSET field of the last  
32   *Candidate Frequency Search Request Message* sent to the  
33   mobile station, the base station shall set this field to '1';  
34   otherwise, the base station shall set this field to '0'.

## 1    3.7.3.3.2.29 Power Up Function Message

2    MSG\_TAG: PUFM

3

| <b>Field</b>      | <b>Length (bits)</b> |
|-------------------|----------------------|
| USE_TIME          | 1                    |
| ACTION_TIME       | 6                    |
| ACTION_TIME_FRAME | 2                    |
| PUF_SETUP_SIZE    | 6                    |
| PUF_PULSE_SIZE    | 7                    |
| PUF_INTERVAL      | 10                   |
| PUF_INIT_PWR      | 6                    |
| PUF_PWR_STEP      | 5                    |
| TOTAL_PUF_PROBES  | 4                    |
| MAX_PWR_PUF       | 4                    |
| PUF_FREQ_INCL     | 1                    |
| PUF_BAND_CLASS    | 0 or 5               |
| PUF_CDMA_FREQ     | 0 or 11              |

4

- 5                USE\_TIME    -    Use action time indicator.  
                     The base station shall set this field to '1'.
- 6                ACTION\_TIME    -    Action time.  
                     The base station shall set this field to the System Time, in  
                     units of 80 ms (modulo 64), used in calculating the start of  
                     the first PUF probe.
- 7                ACTION\_TIME\_FRAME    -    Action time frame.  
                     The base station shall set this field to the number of frames  
                     after ACTION\_TIME that the mobile station is to begin the first  
                     PUF probe.
- 8                PUF\_SETUP\_SIZE    -    Number of PUF setup power control groups.  
                     The base station shall set this field to one less than the  
                     number of power control groups that the mobile station is to  
                     transmit at nominal power prior to transmitting a PUF pulse.  
                     The base station shall set the values of PUF\_SETUP\_SIZE and  
                     PUF\_PULSE\_SIZE so that [PUF\_SETUP\_SIZE + 1 +  
                     PUF\_PULSE\_SIZE + 1] mod 16 is not equal to 0.
- 9                PUF\_PULSE\_SIZE    -    Number of PUF pulse power control groups.

|    |                  |                                                                                                                                                                                                                                                                                                                                               |
|----|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  |                  | The base station shall set this field to one less than the number of power control groups that the mobile station is to transmit at elevated power level during the PUF pulse. The base station shall set the values of PUF_SETUP_SIZE and PUF_PULSE_SIZE so that $[PUF\_SETUP\_SIZE + 1 + PUF\_PULSE\_SIZE + 1] \bmod 16$ is not equal to 0. |
| 7  | PUF_INTERVAL     | - PUF interval.<br>The base station shall set this field to the number of frames between the start of each PUF probe.                                                                                                                                                                                                                         |
| 10 | PUF_INIT_PWR     | - Power increase of initial PUF pulse.<br>The base station shall set this field to the amount (in dB) that the mobile station is to increase its mean output power for the first PUF pulse.                                                                                                                                                   |
| 14 | PUF_PWR_STEP     | - PUF power step.<br>The base station shall set this field to the value (in dB) by which the mobile station is to increment the power of a PUF pulse above nominal power from one PUF pulse to the next.                                                                                                                                      |
| 18 | TOTAL_PUF_PROBES | - Total number of PUF probes.<br>The base station shall set this field to one less than the maximum number of PUF probes the mobile station is to transmit in a PUF attempt.                                                                                                                                                                  |
| 22 | MAX_PWR_PUF      | - Maximum number of PUF probes transmitted at full power.<br>The base station shall set this field to one less than the number of PUF pulses that the mobile station is to transmit at maximum power level.                                                                                                                                   |
| 26 | PUF_FREQ_INCL    | - Frequency included indicator.<br>If the mobile station is to change PUF_BAND_CLASS or PUF_CDMA_FREQ, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.                                                                                                                                 |
| 30 | PUF_BAND_CLASS   | - Band class.<br>If PUF_FREQ_INCL is set to '1', the base station shall include this field and set it to the CDMA band class corresponding to the CDMA frequency assignment for the CDMA Channel as specified in [30]; otherwise, the base station shall omit this field.                                                                     |
| 36 | PUF_CDMA_FREQ    | - Frequency assignment.<br>If PUF_FREQ_INCL is set to '1', the base station shall include this field and set it to the CDMA Channel number, in the specified CDMA band class, corresponding to the CDMA frequency for the CDMA Channel as specified in [2]; otherwise, the base station shall omit this field.                                |

## 1    3.7.3.3.2.30 Power Up Function Completion Message

2    MSG\_TAG: PUFCM

3

| <b>Field</b>  | <b>Length (bits)</b> |
|---------------|----------------------|
| RESERVED      | 6                    |
| LOC_IND       | 1                    |
| RESERVED_1    | 0 or 3               |
| MS_LAT        | 0 or 22              |
| MS_LONG       | 0 or 23              |
| MS_LOC_TSTAMP | 0 or 24              |

4

- 5    RESERVED    -    Reserved bits.  
                     The base station shall set these bits to '000000'.
- 6    LOC\_IND    -    Location indicator  
                     If the base station is to include MS\_LAT, MS\_LONG, and  
                     MS\_LOC\_TSTAMP in this message, the base station shall set  
                     this field to '1'; otherwise, the base station shall set this field  
                     to '0'.
- 7    RESERVED\_1    -    Reserved bits.  
                     If LOC\_IND is equal to '1', the base station shall set these bits  
                     to '000'; otherwise, the base station shall not include this  
                     field.
- 8    MS\_LAT    -    Mobile station latitude.  
                     If LOC\_IND is equal to '1', the base station shall set this field  
                     to the mobile station's latitude in units of 0.25 second,  
                     expressed as a two's complement signed number with positive  
                     numbers signifying North latitudes. The base station shall set  
                     this field to a value in the range -1296000 to 1296000  
                     inclusive (corresponding to a range of -90° to +90°).  
                     Otherwise, the base station shall not include this field.
- 9    MS\_LONG    -    Mobile station longitude.  
                     If LOC\_IND is equal to '1', the base station shall set this field  
                     to the mobile station's longitude in units of 0.25 second,  
                     expressed as a two's complement signed number with positive  
                     numbers signifying East longitude. The base station shall set  
                     this field to a value in the range -2592000 to 2592000  
                     inclusive (corresponding to a range of -180° to +180°).  
                     Otherwise, the base station shall not include this field.
- 10    MS\_LOC\_TSTAMP    -    Time stamp.

If LOC\_IND is equal to ‘1’, the base station shall set this field to the time at which the mobile station’s location parameters were received; otherwise, the base station shall not include this field.

This field is formatted as shown below.

| <b>Field</b> | <b>Length (bits)</b> |
|--------------|----------------------|
| HOURS        | 8                    |
| MINUTES      | 8                    |
| SECONDS      | 8                    |

Note: All subfields contain two 4-bit BCD numbers giving the decimal value of the subfield. For example, if the minute is 53, the MINUTES subfield contains ‘01010011’.

- 7
- 8            HOURS    -    Current hour (UTC).
- 9                 The base station shall set this field to the current hour (UTC),
- 10                in the range 0-23.
- 11            MINUTES    -    Current minutes (UTC).
- 12                 The base station shall set this field to the current minutes
- 13                (UTC), in the range 0-59.
- 14            SECONDS    -    Current seconds (UTC).
- 15                 The base station shall set this field to the current seconds
- 16                (UTC), in the range 0-59.

## 1 3.7.3.3.2.31 General Handoff Direction Message

2 MSG\_TAG: GHDM

3

| <b>Field</b>    | <b>Length (bits)</b> |
|-----------------|----------------------|
| USE_TIME        | 1                    |
| ACTION_TIME     | 0 or 6               |
| HDM_SEQ         | 2                    |
| SEARCH_INCLUDED | 1                    |
| SRCH_WIN_A      | 0 or 4               |
| SRCH_WIN_N      | 0 or 4               |
| SRCH_WIN_R      | 0 or 4               |
| T_ADD           | 0 or 6               |
| T_DROP          | 0 or 6               |
| T_COMP          | 0 or 4               |
| T_TDROPOFF      | 0 or 4               |
| SOFT_SLOPE      | 0 or 6               |
| ADD_INTERCEPT   | 0 or 6               |
| DROP_INTERCEPT  | 0 or 6               |
| EXTRA_PARMS     | 1                    |
| P_REV           | 0 or 8               |
| PACKET_ZONE_ID  | 0 or 8               |
| FRAME_OFFSET    | 0 or 4               |
| PRIVATE_LCM     | 0 or 1               |
| RESET_L2        | 0 or 1               |
| RESET_FPC       | 0 or 1               |
| SERV_NEG_TYPE   | 0 or 1               |

4

(continues on next page)

1

| <b>Field</b>            | <b>Length (bits)</b> |
|-------------------------|----------------------|
| ENCRYPT_MODE            | 0 or 2               |
| NOM_PWR_EXT             | 0 or 1               |
| NOM_PWR                 | 0 or 4               |
| NUM_PREAMBLE            | 0 or 3               |
| BAND_CLASS              | 0 or 5               |
| CDMA_FREQ               | 0 or 11              |
| RETURN_IF_HANDOFF_FAIL  | 0 or 1               |
| COMPLETE_SEARCH         | 0 or 1               |
| PERIODIC_SEARCH         | 0 or 1               |
| SCR_INCLUDED            | 0 or 1               |
| SERV_CON_SEQ            | 0 or 3               |
| RECORD_TYPE             | 0 or 8               |
| RECORD_LEN              | 0 or 8               |
| Type-specific fields    | 0 or 8 x RECORD_LEN  |
| SUP_CHAN_PARMS_INCLUDED | 1                    |
| FOR_INCLUDED            | 0 or 1               |
| FOR_SUP_CONFIG          | 0 or 2               |
| NUM_FOR_SUP             | 0 or 3               |
| USE_FOR_DURATION        | 0 or 1               |
| FOR_DURATION            | 0 or 8               |
| REV_INCLUDED            | 0 or 1               |
| REV_DTX_DURATION        | 0 or 4               |
| CLEAR_RETRY_DELAY       | 0 or 1               |
| USE_REV_DURATION        | 0 or 1               |
| REV_DURATION            | 0 or 8               |
| NUM_REV_CODES           | 0 or 3               |
| USE_T_ADD_ABORT         | 0 or 1               |
| REV_PARMS_INCLUDED      | 0 or 1               |
| T_MULCHAN               | 0 or 3               |
| BEGIN_PREAMBLE          | 0 or 3               |
| RESUME_PREAMBLE         | 0 or 3               |

2

(continues on next page)

1

| <b>Field</b>      | <b>Length (bits)</b> |
|-------------------|----------------------|
| USE_PWR_CNTL_STEP | 1                    |
| PWR_CNTL_STEP     | 0 or 3               |
| NUM_PILOTS        | 3                    |

NUM\_PILOTS occurrences of the following record:

|                         |                                       |
|-------------------------|---------------------------------------|
| PILOT_PN                | 9                                     |
| PWR_COMB_IND            | 1                                     |
| FOR_FUND_CODE_CHAN      | 8                                     |
| FOR_SUP_INCLUDED        | 0 or 1                                |
| FOR_SUP_CHAN_REC Record | 0 or 9 or<br>(1 + 8 ×<br>NUM_FOR_SUP) |

|                         |                     |
|-------------------------|---------------------|
| FPC_SUBCHAN_GAIN        | 5                   |
| USE_PC_TIME             | 1                   |
| PC_ACTION_TIME          | 0 or 6              |
| RLGAIN_TRAFFIC_PILOT    | 0 or 6              |
| DEFAULT_RLAG            | 0 or 1              |
| NNSCR_INCLUDED          | 0 or 1              |
| RECORD_TYPE             | 0 or 8              |
| RECORD_LEN              | 0 or 8              |
| Type-specific fields    | 0 or 8 × RECORD_LEN |
| REV_FCH_GATING_MODE     | 1                   |
| REV_PWR_CNTL_DELAY_INCL | 0 or 1              |
| REV_PWR_CNTL_DELAY      | 0 or 2              |

2

(continues on next page)

1

| Field                     | Length (bits)                 |
|---------------------------|-------------------------------|
| <u>D_SIG_ENCRYPT_MODE</u> | 0 or 3                        |
| <u>USE_NEW_KEY</u>        | <u>0 or 1</u>                 |
| <u>ENC_KEY_SIZE</u>       | 0 or 3                        |
| <u>KEY_SEQ</u>            | <u>0 or 4</u>                 |
| <u>SYNC_ID_INCL</u>       | <u>0 or 1</u>                 |
| <u>SYNC_ID_LEN</u>        | <u>0 or 4</u>                 |
| <u>SYNC_ID</u>            | <u>0 or (8 x SYNC_ID_LEN)</u> |
| <u>CC_INFO_INCL</u>       | <u>0 or 1</u>                 |
| <u>NUM_CALLS_ASSIGN</u>   | <u>0 or 8</u>                 |

NUM\_CALLS\_ASSIGN occurrences of the following variable length record

|                            |               |
|----------------------------|---------------|
| <u>CON_REF</u>             | <u>8</u>      |
| <u>RESPONSE_IND</u>        | <u>4</u>      |
| <u>TAG</u>                 | <u>0 or 4</u> |
| <u>BYPASS_ALERT_ANSWER</u> | <u>0 or 1</u> |

|              |   |
|--------------|---|
| CS_SUPPORTED | 1 |
|--------------|---|

2

3

USE\_TIME

- Use action time indicator.

4

5

This field indicates whether an explicit action time is specified in this message.

6

7

8

If an explicit action time is specified in this message, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.

9

ACTION\_TIME

- Action time.

10

11

12

13

If the USE\_TIME field is set to '1', the base station shall set this field to the System Time, in units of 80 ms (modulo 64), at which the handoff is to take effect. If the USE\_TIME field is set to '0' the base station shall omit this field.

14

HDM\_SEQ

- General Handoff Direction Message sequence number.

15

16

17

This field is used by the mobile station in the *Power Measurement Report Message* to identify the order in which the reported pilot strengths are sent.

- |                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                 | <p>The base station shall set this field to the handoff message sequence number, as specified in 3.6.6.2.2.10.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| SEARCH_INCLUDED | <ul style="list-style-type: none"> <li>- Pilot search parameters included.<br/>If the mobile station is to change its pilot search parameters, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| SRCH_WIN_A      | <ul style="list-style-type: none"> <li>- Search window size for the Active Set and Candidate Set.<br/>If SEARCH_INCLUDED is set to ‘1’, the base station shall include the field SRCH_WIN_A and set this field to the window size parameter shown in Table 2.6.6.2.1-1 corresponding to the number of PN chips that the mobile station is to search for pilots in the Active Set and the Candidate Set; otherwise, the base station shall omit this field.</li> </ul>                                                                                                                                                                                                                                                                           |
| SRCH_WIN_N      | <ul style="list-style-type: none"> <li>- Search window size for the Neighbor Set.<br/>If SEARCH_INCLUDED is set to ‘1’, the base station shall include the field SRCH_WIN_N and set this field to the window size parameter shown in Table 2.6.6.2.1-1 corresponding to the search window size to be used by mobile stations for the Neighbor Set after completion of the handoff; otherwise, the base station shall omit this field.</li> </ul>                                                                                                                                                                                                                                                                                                |
| SRCH_WIN_R      | <ul style="list-style-type: none"> <li>- Search window size for the Remaining Set.<br/>If SEARCH_INCLUDED is set to ‘1’, the base station shall include the field SRCH_WIN_R and set this field to the window size parameter shown in Table 2.6.6.2.1-1 corresponding to the search window size to be used by mobile stations for the Remaining Set after completion of the handoff; otherwise, the base station shall omit this field.</li> </ul>                                                                                                                                                                                                                                                                                              |
| T_ADD           | <ul style="list-style-type: none"> <li>- Pilot detection threshold.<br/>This value is used by the mobile station to trigger the transfer of a pilot from the Neighbor Set or Remaining Set to the Candidate Set (see 2.6.6.2.6) and to trigger the sending of the <i>Pilot Strength Measurement Message</i> or <i>Extended Pilot Strength Measurement Message</i> initiating the handoff process (see 2.6.6.2.5.2).<br/>If SEARCH_INCLUDED is set to ‘1’, the base station shall include the field T_ADD and set this field to the pilot detection threshold, expressed as an unsigned binary number equal to <math>\lfloor -2 \times 10 \times \log_{10} E_c/I_o \rfloor</math>; otherwise, the base station shall omit this field.</li> </ul> |
| T_DROP          | <ul style="list-style-type: none"> <li>- Pilot drop threshold.<br/>This value is used by mobile stations to start a handoff drop timer for pilots in the Active Set and the Candidate Set (see 2.6.6.2.3).</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

1           If SEARCH\_INCLUDED is set to ‘1’, the base station shall  
 2           include the field T\_DROP and set this field to the pilot drop  
 3           threshold, expressed as an unsigned binary number equal to  
 4            $\lfloor -2 \times 10 \times \log_{10} E_c/I_0 \rfloor$ ; otherwise, the base station shall omit  
 5           this field.

6           T\_COMP    - Active Set versus Candidate Set comparison threshold.  
 7           The mobile station transmits a *Pilot Strength Measurement*  
 8           *Message* or *Extended Pilot Strength Measurement Message*  
 9           when the strength of a pilot in the Candidate Set exceeds that  
 10          of a pilot in the Active Set by this margin (see 2.6.6.2.5.2).

11          If SEARCH\_INCLUDED is set to ‘1’, the base station shall  
 12          include the field T\_COMP and set this field to the threshold  
 13          Candidate Set pilot to Active Set pilot ratio, in units of 0.5 dB;  
 14          otherwise, the base station shall omit this field.

15          T\_TDROp   - Drop timer value.  
 16          Timer value after which an action is taken by the mobile  
 17          station for a pilot that is a member of the Active Set or  
 18          Candidate Set, and whose strength has not become greater  
 19          than T\_DROP. If the pilot is a member of the Active Set, a  
 20          *Pilot Strength Measurement Message* or *Extended Pilot Strength*  
 21          *Measurement Message* is issued. If the pilot is a member of  
 22          the Candidate Set, it will be moved to the Neighbor Set.

23          If SEARCH\_INCLUDED is set to ‘1’, the base station shall  
 24          include the field T\_TDROp and set this field to the T\_TDROp  
 25          value shown in Table 2.6.6.2.3-1 corresponding to the drop  
 26          timer value to be used by the mobile station; otherwise, the  
 27          base station shall omit this field.

28          SOFT\_SLOPE - The slope in the inequality criterion for adding a pilot to the  
 29          active set, or dropping a pilot from the active set (see 2.6.6.2.3  
 30          and 2.6.6.2.5.2).

31          If SEARCH\_INCLUDED is set to ‘1’, the base station shall  
 32          include the field SOFT\_SLOPE in the additional fields and set  
 33          this field as an unsigned binary number; otherwise, the base  
 34          station shall omit this field.

35          ADD\_INTERCEPT - The intercept in the inequality criterion for adding a pilot to  
 36          the active set (see 2.6.6.2.5.2).

37          If SEARCH\_INCLUDED is set to ‘1’, the base station shall  
 38          include the field ADD\_INTERCEPT in the additional fields and  
 39          set this field as a two's complement signed binary number;  
 40          otherwise, the base station shall omit this field.

41          DROP\_INTERCEPT - The intercept in the inequality criterion for dropping a pilot  
 42          from the active set (see 2.6.6.2.3).

43          If SEARCH\_INCLUDED is set to ‘1’, the base station shall  
 44          include the field DROP\_INTERCEPT in the additional fields and  
 45          set this field as a two's complement signed binary number;  
 46          otherwise, the base station shall omit this field.

47          EXTRA\_PARMS - Extra parameters included.

If the mobile station is to change FRAME\_OFFSET, PRIVATE\_LCM, ENCRYPT\_MODE, NOM\_PWR, BAND\_CLASS, or CDMA\_FREQ, or the mobile station is to perform a reset of the acknowledgment procedures, or the mobile station is to reset Forward Traffic Channel power control counters, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.

P\_REV - Protocol revision level.  
If EXTRA\_PARMS is set to '1', the base station shall set this field to the base station protocol revision level that the mobile station is to use after completion of the handoff; otherwise, the base station shall omit this field.

PACKET\_ZONE\_ID - Packet data services zone identifier.  
If EXTRA\_PARMS is set to '1', the base station shall include the field PACKET\_ZONE\_ID and set this field as described below; otherwise, the base station shall omit this field.

If the base station supports a packet data service zone, the base station shall set this field to the non-zero packet data services zone identifier that the mobile station is to use after completion of the handoff.

If the base station does not support a packet data service zone, the base station shall set this field to '00000000'.

FRAME\_OFFSET - Frame offset.  
The Forward and Reverse Traffic Channel frames are delayed  $\text{FRAME\_OFFSET} \times 1.25 \text{ ms}$  relative to system timing (see of [2]).

If EXTRA\_PARMS is set to '1', the base station shall include the field FRAME\_OFFSET and set this field to the Forward and Reverse Traffic Channel frame offset; otherwise, the base station shall omit this field.

PRIVATE\_LCM - Private long code mask indicator.  
This field is used to change the long code mask after a hard handoff.  
If EXTRA\_PARMS is set to '1', the base station shall include the field PRIVATE\_LCM and set this field as described below; otherwise, the base station shall omit this field.

If the private long code mask is to be used after the handoff, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.

RESET\_L2 - Reset acknowledgment procedures command.  
This field is used to reset acknowledgment processing in the mobile station.  
If EXTRA\_PARMS is set to '1', the base station shall include the field RESET\_L2 and set this field as described below; otherwise, the base station shall omit this field.

- 1                   If the field is included and the mobile station is to reset its  
 2                   acknowledgment procedures, the base station shall set this  
 3                   field to '1'; otherwise, the base station shall set this field to '0'.  
 4           RESET\_FPC - Reset Forward Traffic Channel power control.  
 5                   This field is used to reset the Forward Traffic Channel power  
 6                   control counters.  
 7                   If EXTRA\_PARMS is set to '1', the base station shall include  
 8                   the field RESET\_FPC and set this field as described below;  
 9                   otherwise, the base station shall omit this field.  
 10                  The base station shall set this field to '0' if the Forward Traffic  
 11                  Channel power control counters are to be maintained after  
 12                  completion of the handoff. If the counters are to be initialized  
 13                  as specified in 2.6.4.1.1.1, then the base station shall set this  
 14                  field to '1'.  
 15           SERV\_NEG\_TYPE - Service negotiation type.  
 16                  If EXTRA\_PARMS is set to '1', the base station shall include  
 17                  the field SERV\_NEG\_TYPE and set this field as described  
 18                  below; otherwise, the base station shall omit this field.  
 19                  If the mobile station is to use service negotiation, the base  
 20                  station shall set this field to '1'. If the mobile station is to use  
 21                  service option negotiation, the base station shall set this field  
 22                  to '0'.  
 23           ENCRYPT\_MODE - Message encryption mode.  
 24                  If EXTRA\_PARMS is set to '1', the base station shall include  
 25                  the field ENCRYPT\_MODE and set this field to the  
 26                  ENCRYPT\_MODE value shown in Table 3.7.2.3.2.8-2  
 27                  corresponding to the encryption mode that is to be used for  
 28                  messages sent on the Forward and Reverse Traffic Channels,  
 29                  as specified in 2.3.12.2; otherwise, the base station shall omit  
 30                  this field.  
 31           NOM\_PWR\_EXT - Extended nominal transmit power.  
 32                  If EXTRA\_PARMS is set to '1', the base station shall include  
 33                  this field and set this field as described below; otherwise, the  
 34                  base station shall omit this field.  
 35                  If this field is included and the mobile station is being handed  
 36                  off to a base station operating in Band Class 0 or Band Class  
 37                  3, the base station shall set this field to '0';otherwise,  
 38                  If this field is included and the mobile station is being handed  
 39                  off to a base station operating in a band class other than  
 40                  Band Class 0 or Band Class 3, the base station shall set this  
 41                  field to '1' if the correction factor to be used by the mobile  
 42                  station in the open loop power estimate is between -24 dB and  
 43                  -9 dB inclusive; otherwise (the correction factor is in the range  
 44                  -8 dB to 7 dB inclusive), the base station shall set this field to  
 45                  '0'.  
 46           NOM\_PWR - Nominal transmit power offset.

If EXTRA\_PARMS is set to ‘1’, the base station shall include the field NOM\_PWR and set this field to the correction factor to be used by the mobile station in the open loop power estimate, expressed as a two’s complement value in units of 1 dB (see [2]); otherwise, the base station shall omit this field.

- 6           NUM\_PREAMBLE - Traffic Channel preamble length.  
 7           If EXTRA\_PARMS is set to ‘0’, the base station shall omit the  
 8           NUM\_PREAMBLE field; otherwise, the base station shall  
 9           include this field and set it to the length of Traffic Channel  
 10          preamble that the mobile station is to send when performing a  
 11          handoff; as follows:

12          If, after the handoff, radio configuration 1 or radio  
 13          configuration 2 is to be used, the base station shall set  
 14          NUM\_PREAMBLE to the Traffic Channel preamble length in  
 15          20 ms units; otherwise, the base station shall set  
 16          NUM\_PREAMBLE to the value shown in Table 3.7.3.3.2.17-1  
 17          corresponding to the Traffic Channel preamble length in 1.25  
 18          ms units.

- 19           BAND\_CLASS - Band class.  
 20          If EXTRA\_PARMS is set to ‘1’, the base station shall include  
 21          the field BAND\_CLASS and set this field to the CDMA band  
 22          class corresponding to the CDMA frequency assignment for  
 23          the CDMA Channel as specified in [30]; otherwise, the base  
 24          station shall omit this field.

- 25           CDMA\_FREQ - Frequency assignment.  
 26          If EXTRA\_PARMS is set to ‘1’, the base station shall include  
 27          the field CDMA\_FREQ and set this field to the CDMA Channel  
 28          number, in the specified CDMA band class, corresponding to  
 29          the CDMA frequency assignment for the CDMA Channel as  
 30          specified in [2]; otherwise, the base station shall omit this  
 31          field.

- 32           RETURN\_IF\_HANDOFF - Return on failure flag.  
 33                \_FAIL If EXTRA\_PARMS is set to ‘1’, the base station shall include  
 34                the field RETURN\_IF\_HANDOFF\_FAIL and set this field as  
 35                described below; otherwise, the base station shall omit this  
 36                field.  
 37                If the base station includes this field, it shall set this field to  
 38                ‘1’ if the mobile station is to resume the use of the Active Set  
 39                on the Serving Frequency following an unsuccessful hard  
 40                handoff attempt, as specified in 2.6.6.2.8.2; otherwise, the  
 41                base station shall set this field to ‘0’.

- 42           COMPLETE\_SEARCH - Flag to complete search.  
 43                If RETURN\_IF\_HANDOFF\_FAIL is included and is set to ‘1’,  
 44                the base station shall include the field COMPLETE\_SEARCH  
 45                and set this field as described below; otherwise, the base  
 46                station shall omit this field.

If the base station includes this field, it shall set this field to ‘1’ if the mobile station is to complete the search of the Candidate Frequency Search Set before resuming the use of the Active Set on the Serving Frequency when an inter-frequency handoff attempt is unsuccessful, as specified in 2.6.6.2.8.2; otherwise, the base station shall set this field to ‘0’.

- PERIODIC\_SEARCH - Flag to search the Candidate Frequency periodically.  
If EXTRA\_PARMS is set to ‘1’, the base station shall include the field PERIODIC\_SEARCH and set this field as described below; otherwise, the base station shall omit this field.  
If the base station includes this field, it shall set this field to ‘1’ if the mobile station is to periodically search the Candidate Frequency, as specified in 2.6.6.2.8.3; otherwise, the base station shall set this field to ‘0’.
  - SCR\_INCLUDED - Service Configuration Record included indicator.  
If EXTRA\_PARMS is set to ‘1’, the base station shall include the field SCR\_INCLUDED and shall set this field as described below; otherwise, the base station shall omit this field.  
The base station shall set this field to ‘1’ if it includes Service Configuration Record in the message; otherwise, the base station shall set this field to ‘0’.
  - SERV\_CON\_SEQ - Connect sequence number.  
If SCR\_INCLUDED is included and is set to ‘1’, the base station shall include the field SERV\_CON\_SEQ and shall set this field to the connect sequence number pertaining to this service configuration as specified in 3.6.4.1.2.1.2.
- If SCR\_INCLUDED is included and is set to ‘1’, the base station shall include one occurrence of the following three-field record to specify the service configuration.
- RECORD\_TYPE - Information record type.  
If SCR\_INCLUDED is included and is set to ‘1’, the base station shall include the field RECORD\_TYPE and shall set this field to the record type value shown in Table 3.7.5-1 corresponding to the Service Configuration information record.
  - RECORD\_LEN - Information record length.  
If SCR\_INCLUDED is included and is set to ‘1’, the base station shall include the field RECORD\_LEN and shall set this field to the number of octets included in the type-specific fields of the Service Configuration information record.
  - Type-specific fields - Type-specific fields.  
If SCR\_INCLUDED is included and is set to ‘1’, the base station shall include the type specific fields and shall set these fields as specified in 3.7.5.7 for the Service Configuration information record.

- 1     SUP\_CHAN\_PARAMS-     -     Supplemental channel parameters included indicator.
- 2                 INCLUDED     The base station shall set this field to '1' if the base station  
 3                 includes the FOR\_INCLUDED, REV\_INCLUDED, and  
 4                 REV\_PARMS\_INCLUDED fields in the message; otherwise, the  
 5                 base station shall set this field to '0'.
- 6     FOR\_INCLUDED     -     Forward assignment information included indicator.  
 7                 If SUP\_CHAN\_PARAMS\_INCLUDED is set to '1', the base station  
 8                 shall include the field FOR\_INCLUDED and set this field as  
 9                 described below; otherwise, the base station shall omit this  
 10                field.
- 11                 If the base station includes this field, it shall set this field to  
 12                 '1' if Forward Supplemental Code Channel assignment  
 13                 information is included in the message; otherwise, the base  
 14                 station shall set this field to '0'.
- 15     FOR\_SUP\_CONFIG     -     Forward Supplemental Code Channel configuration indicator.  
 16                 If FOR\_INCLUDED is included and is set to '1', the base  
 17                 station shall include the field FOR\_SUP\_CONFIG and set this  
 18                 field according to the following rules:
- 19                 The base station shall set this field to '00' if Forward  
 20                 Supplemental Code Channels are not specified in the  
 21                 message, and the mobile station is to stop processing all  
 22                 Forward Supplemental Code Channels.
- 23                 The base station shall set this field to '01' if Forward  
 24                 Supplemental Code Channels are not specified in the  
 25                 message, and the mobile station is to start processing the  
 26                 Forward Supplemental Code Channels previously stored in its  
 27                 Code Channel List, CODE\_CHAN\_LIST<sub>s</sub>.
- 28                 The base station shall set this field to '10' if the Forward  
 29                 Supplemental Code Channels are specified in the message,  
 30                 and the mobile station is to stop processing all Forward  
 31                 Supplemental Code Channels in CODE\_CHAN\_LIST<sub>s</sub>, and to  
 32                 update the CODE\_CHAN\_LIST<sub>s</sub>, according to the information  
 33                 contained in the message.
- 34                 The base station shall set this field to '11' if the Forward  
 35                 Supplemental Code Channels are specified in the message,  
 36                 and the mobile station is to update its Code Channel List,  
 37                 CODE\_CHAN\_LIST<sub>s</sub>, according to the information contained in  
 38                 the message and to start processing the Forward  
 39                 Supplemental Code Channels.
- 40
- 41     NUM\_FOR\_SUP     -     Number of Forward Supplemental Code Channels.

1                   If FOR\_SUP\_CONFIG is included and is set to '10' or '11', the  
 2                   base station shall include the field NUM\_FOR\_SUP and set it  
 3                   to the number of Forward Supplemental Code Channels  
 4                   assigned to the mobile station; otherwise, the base station  
 5                   shall omit this field. NUM\_FOR\_SUP shall not exceed the  
 6                   maximum number of Forward Supplemental Code Channels  
 7                   for the negotiated multiplex option.

8                   **USE\_FOR\_DURATION**

- Use forward duration indicator.

9                   If FOR\_SUP\_CONFIG is included and is set to '01' or '11' the  
 10                  base station shall include the field USE\_FOR\_DURATION and  
 11                  set this field as described below; otherwise the base station  
 12                  shall omit this field.

13                  The base station shall set this field to '1' if the  
 14                  FOR\_DURATION field is included in the message and the  
 15                  mobile station is to process the Forward Supplemental Code  
 16                  Channels for a time duration indicated by FOR\_DURATION.

17                  The base station shall set this field to '0' if the mobile station  
 18                  is to process the Forward Supplemental Code Channels for an  
 19                  indefinite duration (i.e., the mobile station is to continue  
 20                  processing Forward Supplemental Code Channels until it  
 21                  receives a subsequent *Supplemental Channel Assignment*  
 22                  *Message* or a *General Handoff Direction Message* that specifies  
 23                  a different Forward Supplemental Code Channel assignment.

24                  **FOR\_DURATION**

- Duration of Forward Supplemental Code Channel assignment.

25                  If USE\_FOR\_DURATION is included and is set to '1' the base  
 26                  station shall include the field FOR\_DURATION and set this  
 27                  field to the allocated duration, in units of 80 ms, for which the  
 28                  mobile station is to process the Forward Supplemental Code  
 29                  Channels; otherwise, the base station shall omit this field.

30                  **REV\_INCLUDED**

- Reverse assignment information included indicator.

31                  If SUP\_CHAN\_PARMS\_INCLUDED is set to '1', the base station  
 32                  shall include the field REV\_INCLUDED and set this field as  
 33                  described below; otherwise, the base station shall omit this  
 34                  field.

35                  If the base station includes this field, it shall set this field to  
 36                  '1' if Reverse Supplemental Code Channel assignment  
 37                  information is included in the message; otherwise, the base  
 38                  station shall set this field to '0'.

39                  **REV\_DTX\_DURATION**

- Reverse Discontinuous Transmission Duration.

40                  If REV\_INCLUDED is included and is set to '1', the base  
 41                  station shall include the field REV\_DTX\_DURATION; otherwise  
 42                  the base station shall omit this field.

If the base station includes this field, it shall set this field to the maximum duration of time in units of 20 ms that the mobile station is allowed to stop transmission on a Reverse Supplemental Code Channel within the reverse assignment duration. The base station shall set this field to ‘0000’ if the mobile station is to stop using a Reverse Supplemental Code Channel once it has stopped transmitting on that Reverse Supplemental Code Channel. The base station shall set this field to ‘1111’ if the mobile station is allowed to resume transmission on a Reverse Supplemental Code Channel at any time within the reverse assignment duration.

- 12      CLEAR\_RETRY\_DELAY    -    Clear retry delay indicator.  
 13      If REV\_INCLUDED is included and is set to ‘1’, the base  
 14      station shall include the field CLEAR\_RETRY\_DELAY and set  
 15      this field as described below; otherwise the base station shall  
 16      omit this field.  
 17      The base station shall set this field to ‘1’ to indicate that the  
 18      mobile station is to clear any existing retry delay which it has  
 19      stored (see 2.6.6.2.5.1); otherwise, the base station shall set  
 20      this field to ‘0’.
- 21      USE\_REV\_DURATION    -    Use reverse duration indicator.  
 22      If REV\_INCLUDED is included and is set to ‘1’, the base  
 23      station shall include the field USE\_REV\_DURATION and set  
 24      this field as described below; otherwise the base station shall  
 25      omit this field.  
 26      The base station shall set this field to ‘1’ if the  
 27      REV\_DURATION field is included in the message and the  
 28      mobile station is allowed to transmit on the Reverse  
 29      Supplemental Code Channels for a time duration indicated by  
 30      REV\_DURATION.  
 31      The base station shall set this field to ‘0’ if the mobile station  
 32      is allowed to transmit on the Reverse Supplemental Code  
 33      Channels for an indefinite duration (i.e., the mobile station  
 34      may continue to transmit on the Reverse Supplemental Code  
 35      Channels until it receives a subsequent *Supplemental Channel*  
 36      *Assignment Message* or a *General Handoff Direction Message*  
 37      that specifies a different Reverse Supplemental Code Channel  
 38      assignment.
- 39      REV\_DURATION    -    Duration of Reverse Supplemental Code Channel Assignment.  
 40      If USE\_REV\_DURATION is included and is set to ‘1’, the base  
 41      station shall include the field REV\_DURATION and set this  
 42      field to the allocated duration, in units of 80 ms, for which the  
 43      mobile station may transmit on Reverse Supplemental Code  
 44      Channels; otherwise the base station shall omit this field.
- 45      NUM\_REV\_CODES    -    Number of Reverse Supplemental Code Channels.

- 1           If REV\_INCLUDED is included and is set to ‘1’, the base  
 2           station shall include the field NUM\_REV\_CODES and set this  
 3           field to the number of Reverse Supplemental Code Channels  
 4           which are assigned to the mobile station; otherwise the base  
 5           station shall omit this field.
- 6        USE\_T\_ADD\_ABORT    - Reverse use T\_ADD abort indicator.  
 7           If REV\_INCLUDED is included and is set to ‘1’, the base  
 8           station shall include the field USE\_T\_ADD\_ABORT and set  
 9           this field as described below; otherwise the base station shall  
 10          omit this field.  
 11          The base station shall set this field to ‘1’ to indicate that the  
 12           mobile station is to use the T\_ADD Reverse Supplemental  
 13           Code Channel abort feature for this reverse assignment;  
 14           otherwise, the base station shall set this field to ‘0’.
- 15        REV\_PARMS-  
 16            INCLUDED    - Reverse assignment parameters included indicator.  
 17           If SUP\_CHAN\_PARMS\_INCLUDED is set to ‘1’, the base station  
 18           shall include the field REV\_PARMS\_INCLUDED and set this  
 19           field as described below; otherwise, the base station shall omit  
 20          this field.  
 21          If the base station includes this field, it shall set this field to  
 22           ‘1’ if the following three fields are included in the message;  
 23           otherwise, the base station shall set this field to ‘0’.
- 24        T\_MULCHAN    - *Supplemental Channel Request Message* pilot strength  
 25           reporting offset.  
 26          If REV\_PARMS\_INCLUDED is included and is set to ‘1’, the  
 27           base station shall include the field T\_MULCHAN and set this  
 28           field as described below; otherwise the base station shall omit  
 29          this field.  
 30          The base station shall set this field to the threshold offset that  
 31           the mobile station is to use when reporting neighbor pilot  
 32           strength measurements in a *Supplemental Channel Request*  
 33           *Message*. The mobile station is to interpret this field as an  
 34           offset to T\_ADD ranging from 0.5 dB (corresponding to  
 35           T\_MULCHAN = ‘000’) to 4.0 dB (corresponding to T\_MULCHAN  
 36           = ‘111’), in 0.5 dB increments.
- 37        BEGIN\_PREAMBLE    - Number of preamble frames on Reverse Supplemental Code  
 38           Channels at the beginning of transmission on Reverse  
 39           Supplemental Code Channel.  
 40          If REV\_PARMS\_INCLUDED is included and is set to ‘1’, the  
 41           base station shall include the field BEGIN\_PREAMBLE and set  
 42           this field to the number of Reverse Supplemental Code  
 43           Channel preamble frames that the mobile station is to send  
 44           when beginning transmission on Reverse Supplemental Code  
 45           Channels; otherwise the base station shall omit this field.
- 46        RESUME\_PREAMBLE    - Number of preamble frames on Reverse Supplemental Code  
 47           Channels at the resumption of transmission.

If REV\_PARMS\_INCLUDED is included and is set to ‘1’, the base station shall include the field RESUME\_PREAMBLE and set this field to the number of Reverse Supplemental Code Channel preamble frames that the mobile station is to send when resuming transmission on a Reverse Supplemental Code Channel following an autonomous suspension of transmission on an allocated Supplemental Code Channel; otherwise the base station shall omit this field.

- 9      USE\_PWR\_CNTL\_STEP    -    Power control step size indicator.  
10     The base station shall set this field to ‘1’ if the field  
11     PWR\_CNTL\_STEP is included in the message.
- 12     PWR\_CNTL\_STEP    -    Power control step size.  
13     If USE\_PWR\_CNTL\_STEP is set to ‘1’, then the base station  
14     shall include the field PWR\_CNTL\_STEP and set this field to  
15     the step size that the mobile station is to use for closed loop  
16     power control, according to Table 3.7.3.3.2.25-1; otherwise,  
17     the base station shall omit this field.
- 18     NUM\_PILOTS    -    Number of pilots included in the message.  
19     The base station shall set this field to the number of pilots  
20     included in the message. The base station shall set this field  
21     to an integer that is equal to or greater than 1.

The base station shall include one occurrence of the following four-part record for each of the NUM\_PILOTS pilots included in the message:

- 25     PILOT\_PN    -    Pilot PN sequence offset index.  
26     The base station shall set this field to the pilot PN sequence  
27     offset for this pilot in units of 64 PN chips.
- 28     PWR\_COMB\_IND    -    Power control symbol combining indicator.  
29     If the Forward Traffic Channel associated with this pilot will  
30     carry the same closed-loop power control subchannel bits as  
31     that of the previous pilot in this message, the base station  
32     shall set this field to ‘1’; otherwise, the base station shall set  
33     this field to ‘0’. The base station shall set this field to ‘0’ in  
34     the first record in the pilot list.
- 35     FOR\_FUND\_CODE-  
36                \_CHAN    -    Forward Fundamental Channel.  
37     The base station shall set this field to the code channel index  
38     to be used for the Forward Fundamental Channel associated  
   with this pilot.
- 39     FOR\_SUP\_INCLUDED    -    Forward Supplemental Code Channel included.  
40     The base station shall include this field if FOR\_SUP\_CONFIG  
41     is included and is set to ‘10’ or ‘11’. If included, the base  
42     station shall set this field to ‘1’ if there are Supplemental Code  
43     Channels associated with this pilot.
- 44     FOR\_SUP\_CHAN\_REC    -    Forward Supplemental Code Channel record

1           If FOR\_SUP\_INCLUDED is set to ‘1’, the base station shall  
 2           include the record FOR\_SUP\_CHAN\_REC and set its fields as  
 3           described below; otherwise, the base station shall omit this  
 4           record.

5           FOR\_SUP\_CHAN\_REC contains information about Forward  
 6           Supplemental Code Channels associated with this pilot, and  
 7           consists of the field EXPL\_CODE\_CHAN, and either the  
 8           BASE\_CODE\_CHAN field or NUM\_FOR\_SUP occurrences of  
 9           the FOR\_SUP\_CODE\_CHAN field, as shown below.

|                |        |
|----------------|--------|
| EXPL_CODE_CHAN | 1      |
| BASE_CODE_CHAN | 0 or 8 |

11          If EXPL\_CODE\_CHAN is equal to ‘1’, NUM\_FOR\_SUP  
 12         occurrences of the following field:

|                   |   |
|-------------------|---|
| FOR_SUP_CODE_CHAN | 8 |
|-------------------|---|

- 14          EXPL\_CODE\_CHAN    - Explicit code channel indicator.  
                  The base station shall set this field to ‘1’ to indicate explicit  
                  assignment of each Forward Supplemental Code Channel by  
                  means of the field FOR\_SUP\_CODE\_CHAN. The base station  
                  shall set this field to ‘0’ if the mobile station is to use  
                  NUM\_FOR\_SUP adjacent code channels beginning with index  
                  BASE\_CODE\_CHAN (i.e., BASE\_CODE\_CHAN through  
                  BASE\_CODE\_CHAN + NUM\_FOR\_SUP - 1).  
                  In both cases (i.e., the explicit code channel list format and  
                  range format), the order of the code channel indices is the  
                  same for all pilots specified in this message (i.e., for each pilot,  
                  the  $i^{th}$  entry in the list indicates the code channel index to be  
                  used for the  $i^{th}$  Forward Supplemental Code Channel  
                  associated with that pilot).
- 28          BASE\_CODE\_CHAN   - Base code channel index.  
                  If the EXPL\_CODE\_CHAN field is included and is set to ‘0’ the  
                  base station shall include the field BASE\_CODE\_CHAN and  
                  set this field as described below; otherwise the base station  
                  shall omit this field.  
                  The base station shall set this field to the base code channel  
                  index (see [2]) in the range of 1 to (63 - NUM\_FOR\_SUP + 1),  
                  inclusive, that the mobile station is to use as the first Forward  
                  Supplemental Code Channel associated with this pilot. The  
                  mobile station is to use code channel index  
                  (BASE\_CODE\_CHAN +  $i - 1$ ), where  $i$  ranges from 1 to  
                  NUM\_FOR\_SUP, for the  $i^{th}$  Forward Supplemental Code  
                  Channel associated with this pilot.
- 41          FOR\_SUP\_CODE\_CHAN - Forward Supplemental Code Channel.

1           If EXPL\_CODE\_CHAN is included and is set to '1', the base  
 2           station shall include NUM\_FOR\_SUP occurrences of the field  
 3           FOR\_SUP\_CODE\_CHAN and set this field as described below;  
 4           otherwise the base station shall omit this field.

5           The base station shall set the  $i^{th}$  occurrence of this field to the  
 6           code channel index (see [2]), in the range 1 to 63 inclusive,  
 7           that the mobile station is to use for the  $i^{th}$  Forward Code  
 8           Channel associated with this pilot.

9        FPC\_SUBCHAN\_GAIN   - Forward power control subchannel relative gain.

10          The base station shall set FPC\_SUBCHAN\_GAIN equal to the  
 11           power level of the forward link power control subchannel  
 12           relative to that of 20 ms frames at a 9600 bps or 14400 bps  
 13           rate on the Forward Fundamental Channel or the Forward  
 14           Dedicated Control Channel that the Forward Power Control  
 15           Subchannel is punctured on. The base station shall set the  
 16           value in units of 0.25 dB.

17        USE\_PC\_TIME   - Use power control action time indicator.

18          This field indicates whether an explicit time  
 19           [PC\_ACTION\_TIME] at which a new value for Power Control  
 20           Subchannel to traffic ratio (FPC\_SUBCHAN\_GAIN) takes effect  
 21           is specified in the message.

22          If an explicit action time is specified in this message, the base  
 23           station shall set this field to '1'; otherwise, the base station  
 24           shall set this field to '0'.

25        PC\_ACTION\_TIME - Power Control Subchannel gain action time.

26          If the USE\_PC\_TIME field is set to '1', the base station shall  
 27           set this field to the System Time, in units of 80 ms (modulo  
 28           64), at which FPC\_SUBCHAN\_GAIN specified in this message  
 29           is to take effect. If the USE\_PC\_TIME field is set to '0' the  
 30           base station shall omit this field.

31        RLGAIN\_TRAFFIC-

32           \_PILOT   - Gain adjustment of the Reverse Traffic Channel relative to the  
 33           Reverse Pilot Channel power for Radio Configurations greater  
 34           than 2.

35          If EXTRA\_PARMS is set to '1', the base station shall include  
 36           this field and set it to the correction factor to be used by  
 37           mobile stations in setting the power of a code channel,  
 38           expressed as a two's complement value in units of 0.125 dB  
 39           (see 2.1.2.3.3 of [2]); otherwise, the base station shall omit  
 40           this field.

41        DEFAULT\_RLAG - Default reverse link attribute gain used indicator.

42          If EXTRA\_PARMS is set to '0', the base station shall omit this  
 43           field; otherwise, the base station set this field as follows.

1                   If the mobile station is to use the default values for the reverse  
 2                   link attribute gain, as specified in [2] after completion of  
 3                   handoff, the base station shall set this field to '1'; otherwise,  
 4                   the base station shall set this field to '0'.

5        **NNSCR\_INCLUDED**    - Non-negotiable Service Configuration Record included  
 6                    indicator.

7                   The base station shall omit this field, if EXTRA\_PARMS is set  
 8                   to '0'; otherwise, the base station shall include this field and  
 9                   set this field as described below:

10                  The base station shall set this field to '1', if the Non-negotiable  
 11                  Service Configuration record is included in this message;  
 12                  otherwise, the base station shall set this field to '0'.

13        If NNSCR\_INCLUDED is included and is set to '1', the base station shall include one  
 14                  occurrence of the following three-field record to specify the non-negotiable service  
 15                  configuration parameters.

16        **RECORD\_TYPE**    - Information record type.

17                  If NNSCR\_INCLUDED is included and is set to '1', the base  
 18                  station shall include the field RECORD\_TYPE and shall set  
 19                  this field to the record type value shown in Table 3.7.5-1  
 20                  corresponding to the Non-Negotiable Service Configuration  
 21                  information record.

22        **RECORD\_LEN**    - Information record length.

23                  If NNSCR\_INCLUDED is included and is set to '1', the base  
 24                  station shall include the field RECORD\_LEN and shall set this  
 25                  field to the number of octets included in the type-specific  
 26                  fields of the Non-Negotiable Service Configuration information  
 27                  record.

28        Type-specific fields   - Type-specific fields.

29                  If NNSCR\_INCLUDED is included and is set to '1', the base  
 30                  station shall include the type specific fields and shall set these  
 31                  fields as specified in 3.7.5.20 for the Non-Negotiable Service  
 32                  Configuration information record.

33        -

34        **REV\_FCH-  
35                  \_GATING\_MODE**   - Reverse eighth gating mode indicator.

36                  The base station shall set this field to '1' if the mobile station  
 37                  is allowed to perform the reverse eighth gating mode after  
 38                  handoff; otherwise, the base station shall set this field to '0'.

39        **REV\_PWR-  
40                  \_CNTL\_DELAY\_INCL**   - Reverse power control delay included indicator.

41                  If REV\_FCH\_GATING\_MODE is set to '0', the base station shall  
 42                  omit this field; otherwise, the base station shall include this  
 43                  field and set it as follows:

The base station shall set this field to '1' if REV\_PWR\_CNTL\_DELAY is included in this message; otherwise, the base station shall set this field to '0'.

REV\_PWR\_CNTL\_DELAY - The reverse power control delay.

If REV\_PWR\_CNTL\_DELAY\_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

The base station shall set this field to the closed-loop reverse power control delay minus one (the closed-loop reverse power control delay is the time between the end of a gated-on reverse PCG and the beginning of the reverse PCG where the corresponding feedback is sent on the Forward Power Control Subchannel, see 2.1.2.3.2 of [2]) used by the mobile station after handoff, in units of 1.25 ms. ~~To disable the gating on the reverse Fundamental Channel, the base station shall set this field to '000'.~~

D\_SIG\_ENCRYPT\_MODE - Dedicated channel General encryption mode indicator.

If ENCRYPT\_MODE is included and is set to '11', the base station shall include this field and shall set it to the dedicated channel signaling message-encryption mode, as shown in Table 3.7.4.5-1; otherwise the base station shall omit this field.

USE\_NEW\_KEY Use new encryption key indication

If ENCRYPT\_MODE is included and is set to '10' or '11', the base station shall include this field. If this field is included, the base station shall set this field to '0' to indicate that the stored encryption key to be used by the mobile station. Otherwise, the base station shall set this field to '1' to indicate that the new encryption key to be used by the mobile station.

ENC\_KEY\_SIZE - Encryption key size indication.

If ENCRYPT\_MODE is included and is set to '10' or 'USE\_NEW\_KEY' is included and is set to '0', the base station shall omit this field; otherwise, the base station shall include this field and set it to the encryption key size, as shown in Table 3.7.4.5-2; this field as described below otherwise, the base station shall omit this field.

The base station shall set this field to the encryption key size, as shown in Table 3.7.4.5-2.

**KEY\_SEQ** Encryption key sequence number.

If USE\_NEW\_KEY is included and is set to '0', the base station shall include this field; otherwise, the base station shall omit this field. If this field is included, the base station shall set it to the encryption key sequence number to be used by the mobile station.

CC\_INFO\_INCL Call Control information included indicator.

1           If the SCR\_INCLUDED field is not included or is included but  
 2           is set to '0', the base station shall omit this field; otherwise,  
 3           the base station shall include this field and set it as follows:

4           The base station shall set this field to '1' if Call Control related  
 5           parameters (to assign new call(s)) are included in this  
 6           message; otherwise, the base station shall set this field to '0'.

7        **SYNC ID INCL** - Service Configuration synchronization identifier included  
 8           indicator.

9           If either the SCR INCLUDED field is included and is set to '1'  
 10          or the NNSCR INCLUDED field is included and is set to '1',  
 11          the base station shall include this field; otherwise, the base  
 12          station shall omit this field. If included, the base station shall  
 13          set this field as follows:

14          The base station shall set this field to '1' if the SYNC ID field  
 15          is included in this message; otherwise, the base station shall  
 16          set this field to '0'.

17        **SYNC ID LEN** - Service Configuration synchronization identifier length.

18          If the SYNC ID INCL field is not included or is included and is  
 19          set to '0', the base station shall omit this field; otherwise, the  
 20          base station shall include this field and set it as follows:

21          The base station shall set this field to the length (in octets) of  
 22          the SYNC ID field included in this message. The base station  
 23          shall set this field to a value larger than zero.

24        **SYNC ID** - Service Configuration synchronization identifier.

25          If the SYNC ID INCL field is not included or is included and is  
 26          set to '0', the base station shall omit this field; otherwise, the  
 27          base station shall include this field and set it as follows:

28          The base station shall set this field to the synchronization  
 29          identifier corresponding to the service configuration conveyed  
 30          by this message.

31        **NUM\_CALLS\_ASSIGN** - Number of call assignments.

32          If the CC\_INFO\_INCL field is not included or is included but is  
 33          set to '0', the base station shall omit this field; otherwise, the  
 34          base station shall include this field and set it as follows:

1                   The base station shall set this field to the number of new call  
 2                   assignments included in this message.

3                   The base station shall include NUM\_CALLS\_ASSIGN occurrences of the following variable  
 4                   length record (CON\_REF, RESPONSE\_IND, TAG, BYPASS\_ALERT\_ANSWER as per the  
 5                   following requirements).

6                   CON\_REF      Connection reference.

7                   The base station shall set this field to the connection reference  
 8                   of the service option connection corresponding to this call.

9                   RESPONSE\_IND      Response indicator.

10                  The base station shall set this field to '1' if this call  
 11                  assignment is a response to an *Enhanced Origination Message*  
 12                  from the mobile station; otherwise, the base station shall set  
 13                  this field to '0'.

14                  TAG      Transaction identifier.

15                  If the RESPONSE\_IND field is set to '0', the base station shall  
 16                  omit this field; otherwise, the base station shall include this  
 17                  field and set it as follows:

18                  The base station shall set this field to the value of the TAG  
 19                  field received in the *Enhanced Origination Message* to which  
 20                  this call assignment is the response.

21                  BYPASS\_ALERT

22                  ANSWER      Bypass alert indicator.

23                  If the RESPONSE\_IND field is set to '1', the base station shall  
 24                  omit this field; otherwise, the base station shall include this  
 25                  field and set it as follows:

26                  If the mobile station is to bypass the *Waiting for Order Substate*  
 27                  and the *Waiting for Mobile Station Answer Substate* for this call,  
 28                  the base station shall set this field to '1'; otherwise, the base  
 29                  station shall set this field to '0'.

31                  CS\_SUPPORTED      -      Concurrent Services supported indicator.

32                  If the base station supports concurrent services, the base  
 33                  station shall set this field to '1'; otherwise, the base station  
 34                  shall set this field to '0'.



## 1    3.7.3.3.2.32 Resource Allocation Message

2    MSG\_TAG: RAM

3

| <b>Field</b> | <b>Length (bits)</b> |
|--------------|----------------------|
| USE_TIME     | 1                    |
| ACTION_TIME  | 0 or 6               |
| FPC_PRI_CHAN | 1                    |

4

5    USE\_TIME   -   Use action time indicator.

6                 This field indicates whether an explicit action time is specified  
7                 in this message.8                 If an explicit action time is specified in this message, the base  
9                 station shall set this field to '1'; otherwise, the base station  
10                shall set this field to '0'.

11                ACTION\_TIME   -   Action time.

12                If the USE\_TIME field is set to '1', the base station shall set  
13                this field to the System Time, in units of 80 ms (modulo 64),  
14                at which this message is to take effect. If the USE\_TIME field  
15                is set to '0' the base station shall omit this field.

16                FPC\_PRI\_CHAN   -   Power Control Subchannel indicator.

17                The base station shall set this field to '0' if the mobile station  
18                is to perform the primary inner loop estimation on the  
19                received Forward Fundamental Channel and the base station  
20                is to multiplex the Power Control Subchannel on the Forward  
21                Fundamental Channel. The base station shall set this field to  
22                '1' if the mobile station is to perform the primary inner loop  
23                estimation on the received Forward Dedicated Control  
24                Channel and the base station is to multiplex the Power  
25                Control Subchannel on the Forward Dedicated Control  
26                Channel.

## 1    3.7.3.3.2.33 Resource Allocation Mini Message

2    MSG\_TAG: RAMM

3

| <b>Field</b> | <b>Length (bits)</b> |
|--------------|----------------------|
| USE_TIME     | 1                    |
| ACTION_TIME  | 0 or 6               |
| FPC_PRI_CHAN | 1                    |

4

5    USE\_TIME    -    Use action time indicator.

6                 This field indicates whether an ACTION\_TIME is specified in  
7                 this message.8                 If an ACTION\_TIME is specified in this message, the base  
9                 station shall set this field to '1'; otherwise, the base station  
10                shall set this field to '0'.

11                ACTION\_TIME    -    Action time.

12                If the USE\_TIME field is set to '1', the base station shall set  
13                this field to the System Time, in units of 80 ms (modulo 64),  
14                at which the message is to take effect. If the USE\_TIME field  
15                is set to '0' the base station shall omit this field.

16                FPC\_PRI\_CHAN    -    Power Control Subchannel indicator.

17                The base station shall set this field to '0' if the mobile station  
18                is to perform the primary inner loop estimation on the  
19                received Forward Fundamental Channel and the base station  
20                is to multiplex the Power Control Subchannel on the Forward  
21                Fundamental Channel. The base station shall set this field to  
22                '1' if the mobile station is to perform the primary inner loop  
23                estimation on the received Forward Dedicated Control  
24                Channel and the base station is to multiplex the Power  
25                Control Subchannel on the Forward Dedicated Control  
26                Channel.

## 1    3.7.3.3.2.34 Extended Release Message

2    MSG\_TAG: ERM

3

| <b>Field</b>      | <b>Length (bits)</b> |
|-------------------|----------------------|
| USE_TIME          | 1                    |
| ACTION_TIME       | 0 or 6               |
| CH_IND            | 3                    |
| GATING_RATE_INCL  | 1                    |
| PILOT_GATING_RATE | 0 or 2               |

4

5    USE\_TIME    -    Use action time indicator.

6    This field indicates whether an explicit action time is specified  
7    in this message.8    If an explicit action time is specified in this message, the base  
9    station shall set this field to '1'; otherwise, the base station  
10   shall set this field to '0'.

11    ACTION\_TIME    -    Action time.

12    If the USE\_TIME field is set to '1', the base station shall set  
13    this field to the System Time, in units of 80 ms (modulo 64),  
14    at which the message is to take effect. If the USE\_TIME field  
15    is set to '0' the base station shall omit this field.

16    CH\_IND    -    Channel Indicator.

17    The base station shall set this field as shown in Table  
18    3.7.3.3.2.34-1, to release physical resources.

**Table 3.7.3.3.2.34-1. Channel Indicator**

| <b>CH_IND<br/>(binary)</b> | <b>Physical Resource(s) Released</b>                                                 |
|----------------------------|--------------------------------------------------------------------------------------|
| 000                        | Reserved                                                                             |
| 001                        | Fundamental Channel                                                                  |
| 010                        | Dedicated Control Channel                                                            |
| 011                        | Reserved                                                                             |
| 100                        | Continuous Reverse Pilot Channel                                                     |
| 101                        | Fundamental Channel and Continuous Reverse Pilot Channel                             |
| 110                        | Dedicated Control Channel and Continuous Reverse Pilot Channel                       |
| 111                        | Fundamental Channel, Dedicated Control Channel, and Continuous Reverse Pilot Channel |

2

- 3      GATING\_RATE\_INCL    -    Reverse pilot gating rate included flag.  
 4                                 The base station shall set this field to '1' if the  
 5                               PILOT\_GATING\_RATE field is included, otherwise it shall set  
 6                               this field to '0'.  
 7      PILOT\_GATING\_RATE    -    Actual Reverse Pilot gating Rate.  
 8                               If the GATING\_RATE\_INCL field is set to '1' then the base  
 9                               station shall set this field to the PILOT\_GATING\_RATE field  
 10                              shown in Table 3.7.3.3.2.34-2 corresponding to the actual  
 11                              gating rate on the Reverse Pilot Channel; otherwise, the base  
 12                              station shall omit this field.

13

14

**Table 3.7.3.3.2.34-2. Actual Reverse Pilot Gating rate**

| <b>PILOT_GATING_RATE field<br/>(binary)</b> | <b>Meaning</b>            |
|---------------------------------------------|---------------------------|
| 00                                          | Gating rate 1             |
| 01                                          | Gating rate $\frac{1}{2}$ |
| 10                                          | Gating rate $\frac{1}{4}$ |
| 11                                          | Reserved                  |

## 1    3.7.3.3.2.35 Extended Release Mini Message

2    MSG\_TAG: ERMM

3

| <b>Field</b>      | <b>Length (bits)</b> |
|-------------------|----------------------|
| USE_TIME          | 1                    |
| ACTION_TIME       | 0 or 6               |
| CH_IND            | 3                    |
| GATING_RATE_INCL  | 1                    |
| PILOT_GATING_RATE | 0 or 2               |

4

5    USE\_TIME    -    Use action time indicator.

6    This field indicates whether an ACTION\_TIME is specified in  
7    this message.8    If an ACTION\_TIME is specified in this message, the base  
9    station shall set this field to '1'; otherwise, the base station  
10   shall set this field to '0'.

11    ACTION\_TIME    -    Action time.

12    If the USE\_TIME field is set to '1', the base station shall set  
13    this field to the System Time, in units of 80 ms (modulo 64),  
14    at which the message is to take effect. If the USE\_TIME field  
15    is set to '0' the base station shall omit this field.

16    CH\_IND    -    Channel Indicator.

17    The base station shall set this field as shown in Table  
18    3.7.3.3.2.34-1, to release physical resources.

19    GATING\_RATE\_INCL    -    Reverse pilot gating rate included flag.

20    The base station shall set this field to '1' if the  
21    PILOT\_GATING\_RATE field is included, otherwise it shall set  
22    this field to '0'.

23    PILOT\_GATING\_RATE    -    Actual Reverse Pilot gating Rate.

24    If the GATING\_RATE\_INCL field is set to '1' then the base  
25    station shall set this field to the PILOT\_GATING\_RATE field  
26    shown in Table 3.7.3.3.2.34-2 corresponding to the actual  
27    gating rate on the Reverse Pilot Channel; otherwise, the base  
28    station shall omit this field.

## 1 3.7.3.3.2.36 Universal Handoff Direction Message

2 MSG\_TAG: UHDM

3

| <b>Field</b>    | <b>Length (bits)</b> |
|-----------------|----------------------|
| USE_TIME        | 1                    |
| ACTION_TIME     | 0 or 6               |
| HDM_SEQ         | 2                    |
| PARMS_INCL      | 1                    |
| P_REV           | 0 or 8               |
| SERV_NEG_TYPE   | 0 or 1               |
| SEARCH_INCLUDED | 1                    |
| SRCH_WIN_A      | 0 or 4               |
| SRCH_WIN_N      | 0 or 4               |
| SRCH_WIN_R      | 0 or 4               |
| T_ADD           | 0 or 6               |
| T_DROP          | 0 or 6               |
| T_COMP          | 0 or 4               |
| T_TDROP         | 0 or 4               |
| SOFT_SLOPE      | 0 or 6               |
| ADD_INTERCEPT   | 0 or 6               |
| DROP_INTERCEPT  | 0 or 6               |
| EXTRA_PARMS     | 1                    |
| PACKET_ZONE_ID  | 0 or 8               |
| FRAME_OFFSET    | 0 or 4               |
| PRIVATE_LCM     | 0 or 1               |
| RESET_L2        | 0 or 1               |
| RESET_FPC       | 0 or 1               |

4

(continues on next page)

1

| <b>Field</b>           | <b>Length (bits)</b> |
|------------------------|----------------------|
| ENCRYPT_MODE           | 0 or 2               |
| NOM_PWR_EXT            | 0 or 1               |
| NOM_PWR                | 0 or 4               |
| RLGAIN_TRAFFIC_PILOT   | 0 or 6               |
| DEFAULT_RLAG           | 0 or 1               |
| NUM_PREAMBLE           | 0 or 3               |
| BAND_CLASS             | 0 or 5               |
| CDMA_FREQ              | 0 or 11              |
| RETURN_IF_HANDOFF_FAIL | 0 or 1               |
| COMPLETE_SEARCH        | 0 or 1               |
| PERIODIC_SEARCH        | 0 or 1               |
| SCR_INCLUDED           | 0 or 1               |
| SERV_CON_SEQ           | 0 or 3               |
| RECORD_TYPE            | 0 or 8               |
| RECORD_LEN             | 0 or 8               |
| Type-specific fields   | 0 or 8 x RECORD_LEN  |
| NNSCR_INCLUDED         | 0 or 1               |
| RECORD_TYPE            | 0 or 8               |
| RECORD_LEN             | 0 or 8               |
| Type-specific fields   | 0 or 8 x RECORD_LEN  |

2

(continues on next page)

1

| <b>Field</b>      | <b>Length (bits)</b> |
|-------------------|----------------------|
| USE_PWR_CNTL_STEP | 1                    |
| PWR_CNTL_STEP     | 0 or 3               |
| CLEAR_RETRY_DELAY | 1                    |
| SCH_INCL          | 1                    |
| NUM_FOR_ASSIGN    | 0 or 2               |

The base station shall include NUM\_FOR\_ASSIGN occurrences of the following fields

|                         |        |
|-------------------------|--------|
| FOR_SCH_ID              | 1      |
| FOR_SCH_DURATION        | 4      |
| FOR_SCH_START_TIME_INCL | 1      |
| FOR_SCH_START_TIME      | 0 or 5 |
| SCCL_INDEX              | 4      |

|                |        |
|----------------|--------|
| NUM_REV_ASSIGN | 0 or 2 |
|----------------|--------|

The base station shall include NUM\_REV\_ASSIGN occurrences of the following fields

|                         |        |
|-------------------------|--------|
| REV_SCH_ID              | 1      |
| REV_SCH_DURATION        | 4      |
| REV_SCH_START_TIME_INCL | 1      |
| REV_SCH_START_TIME      | 0 or 5 |
| REV_SCH_NUM_BITS_IDX    | 4      |

|                  |        |
|------------------|--------|
| FPC_SUBCHAN_GAIN | 5      |
| USE_PC_TIME      | 1      |
| PC_ACTION_TIME   | 0 or 6 |

2

(continues on next page)

3

| <b>Field</b>              | <b>Length (bits)</b>          |
|---------------------------|-------------------------------|
| CH_IND                    | 3                             |
| ACTIVE_SET_REC_LEN        | 8                             |
| ACTIVE_SET_REC_FIELDS     | 8 x ACTIVE_SET_REC_LEN        |
| REV_FCH_GATING_MODE       | 1                             |
| REV_PWR_CNTL_DELAY_INCL   | 0 or 1                        |
| REV_PWR_CNTL_DELAY        | 0 or 2                        |
| <u>D_SIG_ENCRYPT_MODE</u> | 0 or 3                        |
| <u>USE_NEW_KEY</u>        | <u>0 or 1</u>                 |
| <u>ENC_KEY_SIZE</u>       | 0 or 3                        |
| <u>KEY_SEQ</u>            | <u>0 or 4</u>                 |
| 3XFL_1XRL_INCL            | 1                             |
| 1XRL_FREQ_OFFSET          | 0 or 2                        |
| <u>SYNC_ID_INCL</u>       | <u>0 or 1</u>                 |
| <u>SYNC_ID_LEN</u>        | <u>0 or 4</u>                 |
| <u>SYNC_ID</u>            | <u>0 or (8 x SYNC_ID_LEN)</u> |
| CC_INFO_INCL              | 0 or 1                        |
| NUM_CALLS_ASSIGN          | 0 or 8                        |

NUM\_CALLS\_ASSIGN occurrences of the following variable length record:

|                     |        |
|---------------------|--------|
| CON_REF             | 8      |
| RESPONSE_IND        | 1      |
| TAG                 | 0 or 4 |
| BYPASS_ALERT_ANSWER | 0 or 1 |

|              |   |
|--------------|---|
| CS_SUPPORTED | 1 |
|--------------|---|

<sup>1</sup><sup>2</sup> If CH\_IND = '101', the ACTIVE\_SET\_REC\_FIELDS shall be:<sup>3</sup>

|             |        |
|-------------|--------|
| NUM_FOR_SCH | 0 or 5 |
|-------------|--------|

NUM\_FOR\_SCH occurrences of the following three fields:

|                      |   |
|----------------------|---|
| FOR_SCH_ID           | 1 |
| SCCL_INDEX           | 4 |
| FOR_SCH_NUM_BITS_IDX | 4 |

|             |        |
|-------------|--------|
| NUM_REV_SCH | 0 or 5 |
|-------------|--------|

NUM\_REV\_SCH occurrences of the following three fields:

|                      |   |
|----------------------|---|
| REV_SCH_ID           | 1 |
| REV_WALSH_ID         | 1 |
| REV_SCH_NUM_BITS_IDX | 4 |

|                  |   |
|------------------|---|
| NUM_PILOTS       | 3 |
| SRCH_OFFSET_INCL | 1 |

NUM\_PILOTS occurrences of the following record:

|                      |                               |
|----------------------|-------------------------------|
| PILOT_PN             | 9                             |
| SRCH_OFFSET          | 0 or 3                        |
| ADD_PILOT_REC_INCL   | 1                             |
| PILOT_REC_TYPE       | 0 or 3                        |
| RECORD_LEN           | 0 or 3                        |
| Type-specific fields | $8 \times \text{RECORD\_LEN}$ |
| PWR_COMB_IND         | 1                             |
| CODE_CHAN_FCH        | 11                            |
| QOF_MASK_ID_FCH      | 2                             |
| NUM_SCH              | 0 or 5                        |

NUM\_SCH occurrences of the following record

|            |   |
|------------|---|
| FOR_SCH_ID | 1 |
| SCCL_INDEX | 4 |
| PILOT_INCL | 1 |

1

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2

3

|                 |         |
|-----------------|---------|
| CODE_CHAN_SCH   | 0 or 11 |
| QOF_MASK_ID_SCH | 0 or 2  |

|                  |   |
|------------------|---|
| 3X_FCH_INFO_INCL | 1 |
|------------------|---|

NUM\_PILOTS occurrences of the following record if  
3X\_FCH\_INFO\_INCL is set to '1':

|                      |         |
|----------------------|---------|
| 3X_FCH_LOW_INCL      | 1       |
| QOF_MASK_ID_FCH_LOW  | 0 or 2  |
| CODE_CHAN_FCH_LOW    | 0 or 11 |
| 3X_FCH_HIGH_INCL     | 1       |
| QOF_MASK_ID_FCH_HIGH | 0 or 2  |
| CODE_CHAN_FCH_HIGH   | 0 or 11 |
| 3X_SCH_INFO_INCL     | 0 or 1  |

NUM\_SCH occurrences of the following record if  
3X\_SCH\_INFO\_INCL is included and set to '1':

|                      |         |
|----------------------|---------|
| FOR_SCH_ID           | 1       |
| 3X_SCH_LOW_INCL      | 1       |
| QOF_MASK_ID_SCH_LOW  | 0 or 2  |
| CODE_CHAN_SCH_LOW    | 0 or 11 |
| 3X_SCH_HIGH_INCL     | 1       |
| QOF_MASK_ID_SCH_HIGH | 0 or 2  |
| CODE_CHAN_SCH_HIGH   | 0 or 11 |

1

|          |                   |
|----------|-------------------|
| RESERVED | 0 - 7 (as needed) |
|----------|-------------------|

2

3 If CH\_IND = '010' or '110', the ACTIVE\_SET\_REC\_FIELDS shall be:

4

|             |        |
|-------------|--------|
| NUM_FOR_SCH | 0 or 5 |
|-------------|--------|

NUM\_FOR\_SCH occurrences of the following three fields:

|                      |   |
|----------------------|---|
| FOR_SCH_ID           | 1 |
| SCCL_INDEX           | 4 |
| FOR_SCH_NUM_BITS_IDX | 4 |

|             |        |
|-------------|--------|
| NUM_REV_SCH | 0 or 5 |
|-------------|--------|

NUM\_REV\_SCH occurrences of the following three fields:

|                      |   |
|----------------------|---|
| REV_SCH_ID           | 1 |
| REV_WALSH_ID         | 1 |
| REV_SCH_NUM_BITS_IDX | 4 |

|                  |   |
|------------------|---|
| NUM_PILOTS       | 3 |
| SRCH_OFFSET_INCL | 1 |

NUM\_PILOTS occurrences of the following record:

|                      |                               |
|----------------------|-------------------------------|
| PILOT_PN             | 9                             |
| SRCH_OFFSET          | 0 or 3                        |
| ADD_PILOT_REC_INCL   | 1                             |
| PILOT_REC_TYPE       | 0 or 3                        |
| RECORD_LEN           | 0 or 3                        |
| Type-specific fields | $8 \times \text{RECORD\_LEN}$ |
| PWR_COMB_IND         | 1                             |
| CODE_CHAN_DCCH       | 11                            |
| QOF_MASK_ID_DCCH     | 2                             |
| NUM_SCH              | 0 or 5                        |

NUM\_SCH occurrences of the following five fields:

|                 |         |
|-----------------|---------|
| FOR_SCH_ID      | 1       |
| SCCL_INDEX      | 4       |
| PILOT_INCL      | 1       |
| CODE_CHAN_SCH   | 0 or 11 |
| QOF_MASK_ID_SCH | 0 or 2  |

1

|                   |   |
|-------------------|---|
| 3X_DCCH_INFO_INCL | 1 |
|-------------------|---|

NUM\_PILOTS occurrences of the following record if 3X\_DCCH\_INFO\_INCL is set to '1':

|                       |         |
|-----------------------|---------|
| 3X_DCCH_LOW_INCL      | 1       |
| QOF_MASK_ID_DCCH_LOW  | 0 or 2  |
| CODE_CHAN_DCCH_LOW    | 0 or 11 |
| 3X_DCCH_HIGH_INCL     | 1       |
| QOF_MASK_ID_DCCH_HIGH | 0 or 2  |
| CODE_CHAN_DCCH_HIGH   | 0 or 11 |
| 3X_SCH_INFO_INCL      | 0 or 1  |

NUM\_SCH occurrences of the following record if 3X\_SCH\_INFO\_INCL is included and set to '1':

|                      |         |
|----------------------|---------|
| FOR_SCH_ID           | 1       |
| 3X_SCH_LOW_INCL      | 1       |
| QOF_MASK_ID_SCH_LOW  | 0 or 2  |
| CODE_CHAN_SCH_LOW    | 0 or 11 |
| 3X_SCH_HIGH_INCL     | 1       |
| QOF_MASK_ID_SCH_HIGH | 0 or 2  |
| CODE_CHAN_SCH_HIGH   | 0 or 11 |

2

|          |                   |
|----------|-------------------|
| RESERVED | 0 - 7 (as needed) |
|----------|-------------------|

3

4 If CH\_IND = '111', the ACTIVE\_SET\_REC\_FIELDS shall be:

5

|             |        |
|-------------|--------|
| NUM_FOR_SCH | 0 or 5 |
|-------------|--------|

NUM\_FOR\_SCH occurrences of the following three fields:

|                      |   |
|----------------------|---|
| FOR_SCH_ID           | 1 |
| SCCL_INDEX           | 4 |
| FOR_SCH_NUM_BITS_IDX | 4 |

|             |        |
|-------------|--------|
| NUM_REV_SCH | 0 or 5 |
|-------------|--------|

NUM\_REV\_SCH occurrences of the following three fields:

|                      |   |
|----------------------|---|
| REV_SCH_ID           | 1 |
| REV_WALSH_ID         | 1 |
| REV_SCH_NUM_BITS_IDX | 4 |

|                  |   |
|------------------|---|
| NUM_PILOTS       | 3 |
| SRCH_OFFSET_INCL | 1 |

NUM\_PILOTS occurrences of the following record:

|                      |                               |
|----------------------|-------------------------------|
| PILOT_PN             | 9                             |
| SRCH_OFFSET          | 0 or 3                        |
| ADD_PILOT_REC_INCL   | 1                             |
| PILOT_REC_TYPE       | 0 or 3                        |
| RECORD_LEN           | 0 or 3                        |
| Type-specific fields | $8 \times \text{RECORD\_LEN}$ |
| PWR_COMB_IND         | 1                             |
| CODE_CHAN_FCH        | 11                            |
| QOF_MASK_ID_FCH      | 2                             |
| CODE_CHAN_DCCH       | 11                            |
| QOF_MASK_ID_DCCH     | 2                             |
| NUM_SCH              | 0 or 5                        |

NUM\_SCH occurrences of the following five field record:

|            |   |
|------------|---|
| FOR_SCH_ID | 1 |
|------------|---|

|                   |         |
|-------------------|---------|
| SCCL_INDEX        | 4       |
| PILOT_INCL        | 1       |
| CODE_CHAN_SCH     | 0 or 11 |
| QOF_MASK_ID_SCH   | 0 or 2  |
| 3X_FCH_INFO_INCL  | 1       |
| 3X_DCCH_INFO_INCL | 1       |

NUM\_PILOTS occurrences of the following record if 3X\_FCH\_INFO\_INCL or 3X\_DCCH\_INFO\_INCL is set to '1':

|                       |         |
|-----------------------|---------|
| 3X_FCH_LOW_INCL       | 0 or 1  |
| QOF_MASK_ID_FCH_LOW   | 0 or 2  |
| CODE_CHAN_FCH_LOW     | 0 or 11 |
| 3X_FCH_HIGH_INCL      | 0 or 1  |
| QOF_MASK_ID_FCH_HIGH  | 0 or 2  |
| CODE_CHAN_FCH_HIGH    | 0 or 11 |
| 3X_DCCH_LOW_INCL      | 0 or 1  |
| QOF_MASK_ID_DCCH_LOW  | 0 or 2  |
| CODE_CHAN_DCCH_LOW    | 0 or 11 |
| 3X_DCCH_HIGH_INCL     | 0 or 1  |
| QOF_MASK_ID_DCCH_HIGH | 0 or 2  |
| CODE_CHAN_DCCH_HIGH   | 0 or 11 |
| 3X_SCH_INFO_INCL      | 0 or 1  |

NUM\_SCH occurrences of the following record if 3X\_SCH\_INFO\_INCL is included and set to '1':

|                      |         |
|----------------------|---------|
| FOR_SCH_ID           | 1       |
| 3X_SCH_LOW_INCL      | 1       |
| QOF_MASK_ID_SCH_LOW  | 0 or 2  |
| CODE_CHAN_SCH_LOW    | 0 or 11 |
| 3X_SCH_HIGH_INCL     | 1       |
| QOF_MASK_ID_SCH_HIGH | 0 or 2  |
| CODE_CHAN_SCH_HIGH   | 0 or 11 |

1

|          |                   |
|----------|-------------------|
| RESERVED | 0 - 7 (as needed) |
|----------|-------------------|

2

3

USE\_TIME - Use action time indicator.

1           This field indicates whether an explicit action time is specified  
 2           in this message.

3           If an explicit action time is specified in this message, the base  
 4           station shall set this field to '1'; otherwise, the base station  
 5           shall set this field to '0'.

- 6           ACTION\_TIME     - Action time.  
 7                         If the USE\_TIME field is set to '1', the base station shall set  
 8                         this field to the System Time, in units of 80 ms (modulo 64),  
 9                         at which the handoff is to take effect. If the USE\_TIME field is  
  10                  set to '0' the base station shall omit this field.
- 11           HDM\_SEQ       - *Universal Handoff Direction Message* sequence number.  
 12                         This field is used by the mobile station in the *Power*  
 13                         *Measurement Report Message* to identify the order in which  
 14                  the reported pilot strengths are sent.
- 15           PARMS\_INCL    - Parameters included indicator.  
 16                         The base station shall set this field to the handoff message  
 17                         sequence number, as specified in 2.6.6.2.2.10.
- 18           P\_REV         - Protocol revision level.  
 19                         If PARMS\_INCL is set to '1', the base station shall set this field  
 20                         to the base station protocol revision level that the mobile  
 21                         station is to use after completion of the handoff; otherwise,  
 22                  the base station shall omit this field.
- 23           SERV\_NEG\_TYPE - Service negotiation type.  
 24                         If PARMS\_INCL is set to '1', the base station shall include the  
 25                         field SERV\_NEG\_TYPE and set this field as described below;  
 26                  otherwise, the base station shall omit this field.  
 27                         If the mobile station is to use service negotiation, the base  
 28                         station shall set this field to '1'. If the mobile station is to use  
 29                         service option negotiation, the base station shall set this field  
 30                  to '0'.
- 31           SEARCH\_INCLUDED - Pilot search parameters included.  
 32                         If the mobile station is to change its pilot search parameters,  
 33                         the base station shall set this field to '1'; otherwise, the base  
 34                  station shall set this field to '0'.
- 35           SRCH\_WIN\_A    - Search window size for the Active Set and Candidate Set.  
 36                         If SEARCH\_INCLUDED is set to '1', the base station shall  
 37                         include the field SRCH\_WIN\_A and set this field to the window  
 38                         size parameter shown in Table 2.6.6.2.1-1 corresponding to  
 39                         the number of PN chips that the mobile station is to search for  
 40                         pilots in the Active Set and the Candidate Set; otherwise, the  
 41                  base station shall omit this field.

- 1           SRCH\_WIN\_N   - Search window size for the Neighbor Set.  
 2           If SEARCH\_INCLUDED is set to ‘1’, the base station shall  
 3           include the field SRCH\_WIN\_N and set this field to the window  
 4           size parameter shown in Table 2.6.6.2.1-1 corresponding to  
 5           the search window size to be used by mobile stations for the  
 6           Neighbor Set after completion of the handoff; otherwise, the  
 7           base station shall omit this field.
- 8           SRCH\_WIN\_R   - Search window size for the Remaining Set.  
 9           If SEARCH\_INCLUDED is set to ‘1’, the base station shall  
 10          include the field SRCH\_WIN\_R and set this field to the window  
 11          size parameter shown in Table 2.6.6.2.1-1 corresponding to  
 12          the search window size to be used by mobile stations for the  
 13          Remaining Set after completion of the handoff; otherwise, the  
 14          base station shall omit this field.
- 15           T\_ADD   - Pilot detection threshold.  
 16           This value is used by the mobile station to trigger the transfer  
 17           of a pilot from the Neighbor Set or Remaining Set to the  
 18           Candidate Set (see 2.6.6.2.6) and to trigger the sending of the  
 19           *Pilot Strength Measurement Message* or *Extended Pilot Strength*  
 20           *Measurement Message* initiating the handoff process (see  
 21           2.6.6.2.5.2).  
 22           If SEARCH\_INCLUDED is set to ‘1’, the base station shall  
 23           include the field T\_ADD and set this field to the pilot detection  
 24           threshold, expressed as an unsigned binary number equal to  
 25            $\lfloor -2 \times 10 \times \log_{10} E_c/I_o \rfloor$ ; otherwise, the base station shall omit  
 26           this field.
- 27           T\_DROP   - Pilot drop threshold.  
 28           This value is used by mobile stations to start a handoff drop  
 29           timer for pilots in the Active Set and the Candidate Set (see  
 30           2.6.6.2.3).  
 31           If SEARCH\_INCLUDED is set to ‘1’, the base station shall  
 32           include the field T\_DROP and set this field to the pilot drop  
 33           threshold, expressed as an unsigned binary number equal to  
 34            $\lfloor -2 \times 10 \times \log_{10} E_c/I_o \rfloor$ ; otherwise, the base station shall omit  
 35           this field.
- 36           T\_COMP   - Active Set versus Candidate Set comparison threshold.  
 37           The mobile station transmits a *Pilot Strength Measurement*  
 38           *Message* or *Extended Pilot Strength Measurement Message*  
 39           when the strength of a pilot in the Candidate Set exceeds that  
 40           of a pilot in the Active Set by this margin (see 2.6.6.2.5.2).  
 41           If SEARCH\_INCLUDED is set to ‘1’, the base station shall  
 42           include the field T\_COMP and set this field to the threshold  
 43           Candidate Set pilot to Active Set pilot ratio, in units of 0.5 dB;  
 44           otherwise, the base station shall omit this field.

|    |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | T_TDROPO       | <ul style="list-style-type: none"> <li>- Drop timer value.</li> </ul> <p>Timer value after which an action is taken by the mobile station for a pilot that is a member of the Active Set or Candidate Set, and whose strength has not become greater than T_DROP. If the pilot is a member of the Active Set, a <i>Pilot Strength Measurement Message</i> or <i>Extended Pilot Strength Measurement Message</i> is issued. If the pilot is a member of the Candidate Set, it will be moved to the Neighbor Set.</p> |
| 9  |                | If SEARCH_INCLUDED is set to ‘1’, the base station shall include the field T_TDROPO and set this field to the T_TDROPO value shown in Table 2.6.6.2.3-1 corresponding to the drop timer value to be used by the mobile station; otherwise, the base station shall omit this field.                                                                                                                                                                                                                                  |
| 14 | SOFT_SLOPE     | <ul style="list-style-type: none"> <li>- The slope in the inequality criterion for adding a pilot to the Active Set, or dropping a pilot from the Active Set (see 2.6.6.2.3 and 2.6.6.2.5.2).</li> </ul> <p>If SEARCH_INCLUDED is set to ‘1’, the base station shall include the field SOFT_SLOPE in the additional fields and set this field as an unsigned binary number; otherwise, the base station shall omit this field.</p>                                                                                  |
| 21 | ADD_INTERCEPT  | <ul style="list-style-type: none"> <li>- The intercept in the inequality criterion for adding a pilot to the Active Set (see 2.6.6.2.5.2).</li> </ul> <p>If SEARCH_INCLUDED is set to ‘1’, the base station shall include the field ADD_INTERCEPT in the additional fields and set this field as a two's complement signed binary number; otherwise, the base station shall omit this field.</p>                                                                                                                    |
| 27 | DROP_INTERCEPT | <ul style="list-style-type: none"> <li>- The intercept in the inequality criterion for dropping a pilot from the Active Set (see 2.6.6.2.3).</li> </ul> <p>If SEARCH_INCLUDED is set to ‘1’, the base station shall include the field DROP_INTERCEPT in the additional fields and set this field as a two's complement signed binary number; otherwise, the base station shall omit this field.</p>                                                                                                                 |
| 33 | EXTRA_PARMS    | <ul style="list-style-type: none"> <li>- Extra parameters included.</li> </ul> <p>If the base station includes the fields PACKET_ZONE_ID, FRAME_OFFSET, PRIVATE_LCM, RESET_L2, RESET_FPC, SERV_NEG_TYPE, ENCRYPT_MODE, NOM_PWR_EXT, NOM_PWR, RLGAIN_TRAFFIC_PILOT, DEFAULT_RLAG, NUM_PREAMBLE, BAND_CLASS, PERIODIC_SEARCH, or CDMA_FREQ in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.</p>                                                |
| 41 | PACKET_ZONE_ID | <ul style="list-style-type: none"> <li>- Packet data services zone identifier.</li> </ul> <p>If EXTRA_PARMS is set to ‘1’, the base station shall include the field PACKET_ZONE_ID and set this field as described below; otherwise, the base station shall omit this field.</p>                                                                                                                                                                                                                                    |

If the base station supports a packet data service zone, the base station shall set this field to the non-zero packet data services zone identifier that the mobile station is to use after completion of the handoff.

If the base station does not support a packet data service zone, the base station shall set this field to '00000000'.

7           FRAME\_OFFSET - Frame offset.

8           The Forward and Reverse Traffic Channel frames are delayed  
9           FRAME\_OFFSET × 1.25 ms relative to system timing (see [2]).

10          If EXTRA\_PARMS is set to '1', the base station shall include  
11          the field FRAME\_OFFSET and set this field to the Forward  
12          and Reverse Traffic Channel frame offset; otherwise, the base  
13          station shall omit this field.

14          PRIVATE\_LCM - Private long code mask indicator.

15          This field is used to change the long code mask after a hard  
16          handoff.

17          If EXTRA\_PARMS is set to '1', the base station shall include  
18          the field PRIVATE\_LCM and set this field as described below;  
19          otherwise, the base station shall omit this field.

20          If the private long code mask is to be used after the handoff,  
21          the base station shall set this field to '1'; otherwise, the base  
22          station shall set this field to '0'.

23          RESET\_L2 - Reset acknowledgment procedures command.

24          This field is used to reset acknowledgment processing in the  
25          mobile station.

26          If EXTRA\_PARMS is set to '1', the base station shall include  
27          the field RESET\_L2 and set this field as described below;  
28          otherwise, the base station shall omit this field.

29          If the field is included and the mobile station is to reset its  
30          acknowledgment procedures, the base station shall set this  
31          field to '1'; otherwise, the base station shall set this field to '0'.

32          RESET\_FPC - Reset Forward Traffic Channel power control.

33          This field is used to reset the Forward Traffic Channel power  
34          control counters.

35          If EXTRA\_PARMS is set to '1', the base station shall include  
36          the field RESET\_FPC and set this field as described below;  
37          otherwise, the base station shall omit this field.

38          The base station shall set this field to '0' if the Forward Traffic  
39          Channel power control counters are to be maintained after  
40          completion of the handoff. If the counters are to be initialized  
41          as specified in 2.6.4.1.1.1, then the base station shall set this  
42          field to '1'.

|    |                      |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|----|----------------------|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | ENCRYPT_MODE         | - | Message encryption mode.                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 2  |                      |   | If EXTRA_PARMS is set to '1', the base station shall include the field ENCRYPT_MODE and set this field to the ENCRYPT_MODE value shown in Table 3.7.2.3.2.8-2 corresponding to the encryption mode that is to be used for messages sent on the Forward and Reverse Traffic Channels, as specified in 2.3.12.2; otherwise, the base station shall omit this field.                                                                                                        |
| 3  |                      |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 4  | NOM_PWR_EXT          | - | Extended nominal transmit power.                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 5  |                      |   | If EXTRA_PARMS is set to '1', the base station shall include this field and set this field as described below; otherwise, the base station shall omit this field.                                                                                                                                                                                                                                                                                                        |
| 6  |                      |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 7  |                      |   | If <u>this field is included and the mobile station is being handed off to a base station operating in Band Class 0 or Band Class 3</u> , the base station shall set this field to '0'; <u>otherwise</u> .                                                                                                                                                                                                                                                               |
| 8  |                      |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 9  |                      |   | <u>If this field is included and the mobile station is being handed off to a base station operating in a band class other than Band Class 0 or Band Class 3</u> , the base station shall set this field to '1' if the correction factor to be used by the mobile station in the open loop power estimate is between -24 dB and -9 dB inclusive; otherwise (the correction factor is in the range -8 dB to 7 dB inclusive), the base station shall set this field to '0'. |
| 10 |                      |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 11 | NOM_PWR              | - | Nominal transmit power offset.                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 12 |                      |   | If EXTRA_PARMS is set to '1', the base station shall include the field NOM_PWR and set this field to the correction factor to be used by the mobile station in the open loop power estimate, expressed as a two's complement value in units of 1 dB (see [2]); otherwise, the base station shall omit this field.                                                                                                                                                        |
| 13 |                      |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 14 | RLGAIN_TRAFFIC_PILOT | - | Gain adjustment of the Reverse Traffic Channel relative to the Reverse Pilot Channel power for Radio configurations greater than 2.                                                                                                                                                                                                                                                                                                                                      |
| 15 |                      |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 16 |                      |   | If EXTRA_PARMS is set to '1', the base station shall include this field and set it to the correction factor to be used by mobile stations in setting the power of a reverse traffic channel, expressed as a two's complement value in units of 0.125 dB (see 2.1.2.3.3 of [2]; otherwise, the base station shall omit this field).                                                                                                                                       |
| 17 |                      |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 18 | DEFAULT_RLAG         | - | Default reverse link attribute gain used indicator.                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 19 |                      |   | If EXTRA_PARMS is set to '0', the base station shall omit this field; otherwise, the base station set this field as follows:                                                                                                                                                                                                                                                                                                                                             |
| 20 |                      |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 21 |                      |   | If the mobile station is to use the default values for the reverse link attribute gain, as specified in Table 2.1.2.3.3-1 of [2] after completion of handoff, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.                                                                                                                                                                                                     |
| 22 |                      |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 23 | NUM_PREAMBLE         | - | Number of Traffic Channel preamble.                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 24 |                      |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

If EXTRA\_PARMS is set to '0', the base station shall omit the NUM\_PREAMBLE field; otherwise, the base station shall include this field and set it to the length of Traffic Channel preamble that the mobile station is to send when performing a handoff; as follows:

If, after the handoff, radio configuration 1 or radio configuration 2 is to be used, the base station shall set NUM\_PREAMBLE to the Traffic Channel preamble length in 20 ms units; otherwise, the base station shall set NUM\_PREAMBLE to the value shown in Table 3.7.3.3.2.17-1 corresponding to the Traffic Channel preamble length in 1.25 ms units.

**BAND\_CLASS** - Band class.

If EXTRA\_PARMS is set to '1', the base station shall include the field BAND\_CLASS and set this field to the CDMA band class corresponding to the CDMA frequency assignment for the CDMA Channel as specified in [30]; otherwise, the base station shall omit this field.

**CDMA\_FREQ** - Frequency assignment.

If EXTRA\_PARMS is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

If a Radio Configuration associated with Spreading Rate 1 is used, the base station shall set this field to the CDMA Channel number, in the specified CDMA band class, corresponding to the CDMA frequency assignment for the CDMA Channel as specified in [2]. If a Radio Configuration associated with Spreading Rate 3 is used, the base station shall include the field CDMA\_FREQ and set this field to the CDMA Channel number, in the specified CDMA band class, corresponding to the CDMA center SR3 frequency assignment for the CDMA Channel..

**RETURN\_IF\_HANOFF\_FAIL**

- Return on failure flag.

If EXTRA\_PARMS is set to '1', the base station shall include the field RETURN\_IF\_HANOFF\_FAIL and set this field as described below; otherwise, the base station shall omit this field.

If the base station includes this field, it shall set this field to '1' if the mobile station is to resume the use of the Active Set on the Serving Frequency following an unsuccessful hard handoff attempt, as specified in 2.6.6.2.8.2; otherwise, the base station shall set this field to '0'.

**COMPLETE\_SEARCH** - Flag to complete search.

If RETURN\_IF\_HANOFF\_FAIL is included and is set to '1', the base station shall include the field COMPLETE\_SEARCH and set this field as described below; otherwise, the base station shall omit this field.

1                   If the base station includes this field, it shall set this field to  
 2                   ‘1’ if the mobile station is to complete the search of the  
 3                   Candidate Frequency Search Set before resuming the use of  
 4                   the Active Set on the Serving Frequency when an inter-  
 5                   frequency handoff attempt is unsuccessful, as specified in  
 6                   2.6.6.2.8.2; otherwise, the base station shall set this field to  
 7                   ‘0’.

- 8       PERIODIC\_SEARCH - Flag to search the Candidate Frequency periodically.  
 9                   If EXTRA\_PARMS is set to ‘1’, the base station shall include  
 10                  the field PERIODIC\_SEARCH and set this field as described  
 11                  below; otherwise, the base station shall omit this field.
- 12       SCR\_INCLUDED - Service Configuration Record included indicator.  
 13                   If EXTRA\_PARMS is set to ‘1’, the base station shall include  
 14                  the field SCR\_INCLUDED and shall set this field as described  
 15                  below; otherwise, the base station shall omit this field.
- 16       SERV\_CON\_SEQ - Connect sequence number.  
 17                   The base station shall set this field to ‘1’ if it includes the  
 18                  Service Configuration Record in the message; otherwise, the  
 19                  base station shall set this field to ‘0’.
- 20       If SCR\_INCLUDED is included and is set to ‘1’, the base station shall include one  
 21                  occurrence of the following three-field record to specify the service configuration.
- 22       RECORD\_TYPE - Information record type.  
 23                   If SCR\_INCLUDED is included and is set to ‘1’, the base  
 24                  station shall include the field RECORD\_TYPE and shall set  
 25                  this field to the record type value shown in Table 3.7.5-1  
 26                  corresponding to the Service Configuration information  
 27                  record.
- 28       RECORD\_LEN - Information record length.  
 29                   If SCR\_INCLUDED is included and is set to ‘1’, the base  
 30                  station shall include the field RECORD\_LEN and shall set this  
 31                  field to the number of octets included in the type-specific  
 32                  fields of the Service Configuration information record.
- 33       Type-specific fields - Type-specific fields.  
 34                   If SCR\_INCLUDED is included and is set to ‘1’, the base  
 35                  station shall include the type specific fields and shall set these  
 36                  fields as specified in 3.7.5.7 for the Service Configuration  
 37                  information record.

1       NNSCR\_INCLUDED   - Non-negotiable Service Configuration Record Included  
 2                            indicator

3                           The base station shall omit this field, if EXTRA\_PARMS is set  
 4                           to '0'; otherwise, the base station shall include this field and  
 5                           set this field as described below:

6                           The base station shall set this field to '1', if the Non-negotiable  
 7                           Service Configuration record is included in this message;  
 8                           otherwise, the base station shall set this field to '0'.

9       If NNSCR\_INCLUDED is included and is set to '1', the base station shall include one  
 10                          occurrence of the following three-field record to specify the non-negotiable service  
 11                          configuration.

12       RECORD\_TYPE   - Information record type.

13                           If NNSCR\_INCLUDED is included and is set to '1', the base  
 14                           station shall include the field RECORD\_TYPE and shall set  
 15                           this field to the record type value shown in Table 3.7.5-1  
 16                           corresponding to the Non-Negotiable Service Configuration  
 17                           information record.

18       RECORD\_LEN   - Information record length.

19                           If NNSCR\_INCLUDED is included and is set to '1', the base  
 20                           station shall include the field RECORD\_LEN and shall set this  
 21                           field to the number of octets included in the type-specific  
 22                           fields of the Non-Negotiable Service Configuration information  
 23                           record.

24       Type-specific fields   - Type-specific fields.

25                           If NNSCR\_INCLUDED is included and is set to '1', the base  
 26                           station shall include the type specific fields and shall set these  
 27                           fields as specified in 3.7.5.20 for the Non-Negotiable Service  
 28                           Configuration information record.

29       USE\_PWR\_CNTL\_STEP   - Power control step size indicator.

30                           The base station shall set this field to '1' if the field  
 31                           PWR\_CNTL\_STEP is included in the message.

32       PWR\_CNTL\_STEP   - Power control step size.

33                           If USE\_PWR\_CNTL\_STEP is set to '1', then the base station  
 34                           shall include the field PWR\_CNTL\_STEP and set this field to  
 35                           the step size that the mobile station is to use for closed loop  
 36                           power control, according to Table 3.7.3.3.2.25-1; otherwise,  
 37                           the base station shall omit this field.

38       CLEAR\_RETRY\_DELAY   - Clear retry delay indicator.

39                           The base station shall set this field to '1' if the mobile station  
 40                           is to clear any existing retry delay which it has stored (see  
 41                           2.6.6.2.5.1); otherwise, the base station shall set this field to  
 42                           '0'.

43       SCH\_INCL   - SCH related parameters included indicator.

The base station shall set this field to '1' if this message include the NUM\_FOR\_ASSIGN, NUM\_REV\_ASSIGN, NUM\_FOR\_SCH, NUM\_REV\_SCH, and NUM\_SCH fields. Otherwise, the base station shall set this field to '0'.

## NUM\_FOR-

- Number of Forward Supplemental Channel assigned.  
If SCH\_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field to the number of Forward Supplemental Channel assigned.

The base station shall include NUM\_FOR\_ASSIGN occurrences of the following five fields (FOR\_SCH\_ID, FOR\_SCH\_DURATION, FOR\_SCH\_START\_TIME\_INCL, FOR\_SCH\_START\_TIME, and SCCL\_INDEX).

FOR\_SCH\_ID

- Forward Supplemental Channel identifier.  
The base station shall set this field to the Identifier of the Forward Supplemental Channel.

## FOR\_SCH\_DURATION

- Duration of Forward Supplemental Channel assignment.  
The base station shall set this field to the duration (see Table 3.7.3.3.2.37-3), starting at the start time of the message specified by FOR\_START\_TIME, during which the mobile station is to process the Forward Supplemental Channel.

The base station shall set this field to '0000' to indicate that the mobile station should stop processing the Forward Supplemental Channel starting at the explicit start time of the message specified by FOR\_SCH\_START\_TIME or at the implicit start time if FOR\_SCH\_START\_TIME\_INCL is set to '0'.

The base station shall set this field to '1111' to indicate that the mobile station should process the Forward Supplemental Channel, starting at the start time of the message specified by FOR\_SCH\_START\_TIME, until the start time specified by a subsequent Forward Supplemental Channel assignment corresponding to the same forward Supplemental Channel (see 2.6.6.2.5.1.1).

FOR SCH

## START\_TIME\_INCL

- Start time included indicator.

If FOR\_SCH\_DURATION is not equal to '0000', the base station shall set this field to '1'. If FOR\_SCH\_DURATION is equal to '0000', the base station shall set this field as follows:

The base station shall set this field to '1' if FOR\_SCH\_START\_TIME is included in this message; otherwise, the base station shall set this field to '0'.

- FOR\_SCH\_START\_TIME** - Start time for Forward Supplemental Channel Assignment.

If FOR\_SCH\_START\_TIME INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field to the System Time, in units of time specified by START\_TIME\_UNIT, (modulo 32) at which the mobile station is to start processing the Forward Supplemental Channel specified in this message. The explicit start time for processing Forward Supplemental Channels is the time for which

$$(\lfloor t / (\text{START\_TIME\_UNIT} + 1) \rfloor - \text{FOR\_SCH\_START\_TIME}) \bmod 32 = 0,$$

where t is the System Time in units of 20 ms.

SCCL\_INDEX - Supplemental Channel Code list index.

The base station shall set this field to the index of the record in the Forward Supplemental Channel Code list corresponding to the FOR\_SCH\_ID. The base station shall include an SCCL\_INDEX whose SCH Active Set is a subset of the Active Set of the Fundamental Channel, Dedicated Control Channel, or both.

**NUM\_REV\_ASSIGN** - Number of Reverse Supplemental Channel assigned.  
 If SCH\_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field to the number of Reverse Supplemental Channel assigned.

The base station shall include NUM\_REV\_ASSIGN occurrences of the following five fields (REV\_SCH\_ID, REV\_SCH\_DURATION, REV\_SCH\_START\_TIME\_INCL, REV\_SCH\_START\_TIME, and REV\_SCH\_NUM\_BITS\_IDX).

**REV\_SCH\_ID** - Reverse Supplemental Channel Identifier.  
The base station shall set this field to the identifier of the Reverse Supplemental Channel.

**REV\_SCH-DURATION** - Duration of Reverse Supplemental Channel assignment.

The base station shall set this field to '0000' to indicate that the mobile station is to stop transmitting on the Reverse Supplemental Channel specified by REV\_SCH\_ID at the explicit action time specified by REV\_SCH\_START\_TIME or at the implicit start time if REV\_SCH\_START\_TIME\_INCL is set to '0'. The base station shall set this field to '1111' to indicate that the mobile station may transmit on the Reverse Supplemental Channel specified by REV\_SCH\_ID, starting at the explicit start time specified by REV\_SCH\_START\_TIME in this message, until the start time specified by a subsequent Reverse Supplemental Channel assignment corresponding to the same Supplemental Channel (see 2.6.6.2.5.1.1). The base station shall set this field to the duration according to Table 3.7.3.3.2.37-3, starting at the explicit start time specified by REV\_SCH\_START\_TIME, during which the mobile station may transmit on the Reverse Supplemental Channel specified by REV\_SCH\_ID.

REV\_SCH-

- Start time included indicator.  
If REV\_SCH\_DURATION is not equal to '0000', the base station shall set this field to '1'. If REV\_SCH\_DURATION is equal to '0000', the base station shall set this field as follows:

The base station shall set this field to '1' if REV\_SCH\_START\_TIME is included in this message; otherwise, the base station shall set this field to '0'.

- Start time for Reverse Supplemental Channel Assignment.

If REV\_SCH\_START\_TIME\_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field to the System Time, in units of time specified by START\_TIME\_UNIT, (modulo 32) at which the mobile station may start transmitting on the Reverse Supplemental Channel specified in this message. The explicit start time for transmitting on the Reverse Supplemental Channel is the time for which

$\lfloor t / (\text{START\_TIME\_UNIT}_s + 1) \rfloor - \text{REV\_SCH\_START\_TIME} \bmod 32 = 0$ ,

where t is the System Time in units of 20 ms.

REV SCH-

- Reverse Supplemental Channel number of bits per frame index granted by the base station.

If USE\_FLEX\_NUM\_BITS is equal to '0' or if USE\_FLEX\_NUM\_BITS is equal to '1' and RSCH\_NBIT\_TABLE\_ID[REV\_SCH\_ID] is equal to '0000', then the base station shall set this field according to Table 3.7.3.3.2.37-2 to indicate the Reverse Supplemental Channel number of information bits per frame [and the number of CRC bits per frame](#), that the mobile station may transmit on the reverse Supplemental Channel identified by REV\_SCH\_ID.

If USE\_FLEX\_NUM\_BITS is equal to '1' and RSCH\_NBIT\_TABLE\_ID[REV\_SCH\_ID] is not equal to '0000', then the base station shall set [the REV\\_SCH\\_NUM\\_BITS\\_IDX](#) [this](#) field to indicate the Reverse Supplemental Channel number of information bits per frame that the mobile station may transmit on the Reverse Supplemental Channel identified by REV\_SCH\_ID to be NUM\_BITS[RSCH\_NBIT\_TABLE\_ID[REV\_SCH\_ID]] [REV\_SCH\_NUM\_BITS\_IDX] [and the Reverse Supplemental Channel number of CRC bits per frame that the mobile station may transmit on the Reverse Supplemental Channel identified by REV\\_SCH\\_ID to be CRC\\_LEN\\_IDX\[RSCH\\_NBIT\\_TABLE\\_ID\[REV\\_SCH\\_ID\]\] \[REV\\_SCH\\_NUM\\_BITS\\_IDX\]](#).

~~The REV\_SCH\_NUM\_BITS\_IDX field also specifies the number of CRC bits per frame for the Reverse Supplemental Channel identified by REV\_SCH\_ID. The number of CRC bits per frame is specified by CRC\_LEN\_IDX[RSCH\_NBIT\_TABLE\_ID[REV\_SCH\_ID]] [REV\_SCH\_NUM\_BITS\_IDX] and Table 3.7.5.20-4.~~

FPC\_SUBCHAN\_GAIN - Forward power control subchannel relative gain.

The base station shall set FPC\_SUBCHAN\_GAIN equal to the power level of the forward link power control subchannel relative to that of 20 ms frames at a 9600 bps or 14400 bps rate on the Forward Fundamental Channel or the Forward Dedicated Control Channel that the Forward Power Control Subchannel is punctured on. The base station shall set the value in units of 0.25 dB.

USE\_PC\_TIME - Use power control action time indicator.

This field indicates whether an explicit time [PC\_ACTION\_TIME] at which a new value for power control sub-channel to traffic ratio (FPC\_SUBCHAN\_GAIN) takes effect is specified in the message.

If an explicit action time is specified in this message, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.

PC\_ACTION\_TIME - Power Control Subchannel gain action time.

If the USE\_PC\_TIME field is set to '1', the base station shall set this field to the System Time, in units of 80 ms (modulo 64), at which FPC\_SUBCHAN\_GAIN specified in this message is to take effect. If the USE\_PC\_TIME field is set to '0' the base station shall omit this field.

- CH\_IND - Channel Indicator.  
The base station shall set this field as shown in Table 3.7.3.3.2.36-1.

**Table 3.7.3.3.2.36-1. Channel Indicator**

| <b>CH_IND<br/>(Binary)</b> | <b>Physical Resource(s) Allocated</b>                                                                                                                                                          |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 000                        | Reserved.                                                                                                                                                                                      |
| 001                        | Reserved                                                                                                                                                                                       |
| 010                        | Dedicated Control Channel                                                                                                                                                                      |
| 011                        | Reserved                                                                                                                                                                                       |
| 100                        | Reserved                                                                                                                                                                                       |
| 101                        | <a href="#">For Radio Configuration greater than 2, Fundamental Channel and Continuous Reverse Pilot Channel;</a><br><a href="#">For Radio Configuration 1 or 2, Fundamental Channel only.</a> |
| 110                        | Dedicated Control Channel and Continuous Reverse Pilot Channel                                                                                                                                 |
| 111                        | Fundamental Channel, Dedicated Control Channel and Continuous Reverse Pilot Channel                                                                                                            |

- ACTIVE\_SET\_REC\_LEN - Active Set record length.  
The base station shall set this field to the number of octets in the ACTIVE\_SET\_REC\_FIELDS included in this message.
- ACTIVE\_SET-  
\_REC\_FIELDS - Active Set record fields.  
The Active Set record fields are determined by the value of CH\_IND, as described below.
- REV\_FCH-  
\_GATING\_MODE - Reverse eighth gating mode indicator.  
The base station shall set this field to '1' if the mobile station is allowed to perform the reverse eighth gating mode after handoff; otherwise, the base station shall set this field to '0'.

- 1                   REV\_PWR-
- 2     \_CNTL\_DELAY\_INCL - Reverse power control delay included indicator.
- 3                   If REV\_FCH\_GATING\_MODE is set to '0', the base station shall  
4                   omit this field; otherwise, the base station shall include this  
5                   field and set it as follows.
- 6                   The base station shall set this field to '1' if  
7                   REV\_PWR\_CNTL\_DELAY is included in this message;  
8                   otherwise, the base station shall set this field to '0'.
- 9                   REV\_PWR-
- 10    \_CNTL\_DELAY - The reverse power control delay.
- 11                   If REV\_PWR\_CNTL\_DELAY\_INCL is set to '0', the base station  
12                   shall omit this field; otherwise, the base station shall include  
13                   this field and set it as follows:
- 14                   The base station shall set this field to the closed-loop reverse  
15                   power control delay minus one (the closed-loop reverse power  
16                   control delay is the time between the end of a gated-on reverse  
17                   PCG and the beginning of the reverse PCG where the  
18                   corresponding feedback is sent on the Forward Power Control  
19                   Subchannel, see 2.1.2.3.2 of [2]) used by the mobile station  
20                   after handoff, in units of 1.25 ms.
- 21    | D\_SIG\_ENCRYPT\_MODE - Dedicated channel signaling General-encryption mode indicator.
- 22                   If ENCRYPT\_MODE is included and is set to '11', the base station  
23                   shall include this field and shall set it to the dedicated channel  
24                   signaling message-encryption mode, as shown in Table 3.7.4.5-1;  
25                   otherwise the base station shall omit this field.
- 26    | USE\_NEW\_KEY      Use new encryption key indication
- 27                   If ENCRYPT\_MODE is included and is set to '10' or '11', the base  
28                   station shall include this field. If this field is included, the base  
29                   station shall set this field to '0' to indicate that the stored  
30                   encryption key to be used by the mobile station. Otherwise, the  
31                   base station shall set this field to '1' to indicate that the new  
32                   encryption key to be used by the mobile station.
- 33    | ENC\_KEY\_SIZE     Encryption key size indication.
- 34                   If ENCRYPT\_MODE is included and is set to '10' or  
35                   '11' USE\_NEW\_KEY is included and is set to '0', the base  
36                   station shall omit this field; otherwise, the base station shall  
37                   include this field and set it to the encryption key size, as  
38                   shown in Table 3.7.4.5-2; otherwise, the base station shall  
39                   omit this field this field as described below.
- 40                   The base station shall set this field to the encryption key size, as  
41                   shown in Table 3.7.4.5-2.
- 42    | KEY\_SEQ         Encryption key sequence number.

1            If USE\_NEW\_KEY is included and is set to '0', the base station  
2            shall include this field; otherwise, the base station shall omit this  
3            field. If this field is included, the base station shall set it to the  
4            encryption key sequence number to be used by the mobile  
5            station.

6        3XFL\_1XRL\_INCL - 3X Forward Link and 1X Reverse Link indicator.

7            The base station shall set this field to '1' if the base station is  
8            assigning 3X traffic channel on the Forward Link and 1X  
9            traffic channel on the Reverse Link; otherwise, the base  
10          station shall set this field to '0'.

11        1XRL\_FREQ\_OFFSET - 1X Reverse Link frequency offset.

12            If 3XFL\_1XRL\_INCL is set to '0', the base station shall omit  
13            this field; otherwise, the base station shall set this field as  
14            follows:

15            The base station shall set this field to the value shown in  
16            Table 3.7.2.3.2.21-5 corresponding to the frequency offset of  
17            the 1X reverse link.

**SYNC\_ID\_INCL** - Service Configuration synchronization identifier included indicator.

If either the SCR INCLUDED field is included and is set to '1' or the NNSCR INCLUDED field is included and is set to '1', the base station shall include this field; otherwise, the base station shall omit this field. If included, the base station shall set this field as follows:

The base station shall set this field to '1' if the SYNC ID field is included in this message; otherwise, the base station shall set this field to '0'.

**SYNC ID LEN** - Service Configuration synchronization identifier length.

If the SYNC ID INCL field is not included or is included and is set to '0', the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

The base station shall set this field to the length (in octets) of the SYNC ID field included in this message. The base station shall set this field to a value larger than zero.

**SYNC ID** - Service Configuration synchronization identifier.

If the SYNC ID INCL field is not included or is included and is set to '0', the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

The base station shall set this field to the synchronization identifier corresponding to the service configuration conveyed by this message.

**CC\_INFO\_INCL** - Call Control information included indicator.

If the SCR\_INCLUDED field is not included or is included but is set to '0', the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

The base station shall set this field to '1' if Call Control related parameters (to assign new call(s)) are included in this message; otherwise, the base station shall set this field to '0'.

**NUM\_CALLS\_ASSIGN** - Number of call assignments.

If the CC\_INFO\_INCL field is not included or is included but is set to '0', the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

1                   The base station shall set this field to the number of new call  
 2                   assignments included in this message.

3                   The base station shall include NUM\_CALLS\_ASSIGN occurrences of the following variable  
 4                   length record (CON\_REF, RESPONSE\_IND, TAG, BYPASS\_ALERT\_ANSWER as per the  
 5                   following requirements).

6                   CON\_REF    - Connection reference.

7                   The base station shall set this field to the connection reference  
 8                   of the service option connection corresponding to this call.

9                   RESPONSE\_IND - Response indicator.

10                  The base station shall set this field to '1' if this call  
                      assignment is a response to an *Enhanced Origination Message*  
                      from the mobile station; otherwise, the base station shall set  
                      this field to '0'.

14                  TAG        - Transaction identifier.

15                  If the RESPONSE\_IND field is set to '0', the base station shall  
                      omit this field; otherwise, the base station shall include this  
                      field and set it as follows:

18                  The base station shall set this field to the value of the TAG  
                      field received in the *Enhanced Origination Message* to which  
                      this call assignment is the response.

21                  BYPASS\_ALERT-

22                  \_ANSWER - Bypass alert indicator.

23                  If the RESPONSE\_IND field is set to '1', the base station shall  
                      omit this field; otherwise, the base station shall include this  
                      field and set it as follows:

26                  If the mobile station is to bypass the *Waiting for Order*  
                      *Substate* and the *Waiting for Mobile Station Answer Substate*  
                      for this call, the base station shall set this field to '1';  
                      otherwise, the base station shall set this field to '0'.

30

31                  CS\_SUPPORTED - Concurrent Services supported indicator.

32                  If the base station supports concurrent services, the base  
                      station shall set this field to '1'; otherwise, the base station

1 shall set this field to '0'.  
 2

3 If the CH\_IND field is set to '101', the base station shall include the following fields:

4       NUM\_FOR\_SCH   - Number of Forward Supplemental Channel records.

5                     If SCH\_INCL is set to '0', the base station shall omit this field;  
 6                     otherwise, the base station shall set this field as follows:

7                     The base station shall set this field to the number of the  
 8                     Forward Supplemental Channel records need to be updated.

9 If NUM\_FOR\_SCH is included and not equal to '00000', the base station shall include  
 10 NUM\_FOR\_SCH occurrence of the following three fields:

11       FOR\_SCH\_ID   - Forward Supplemental Channel identifier.

12                     The base station shall set this field to the identifier of the  
 13                     Forward Supplemental Channel.

14       SCCL\_INDEX   - Supplemental Channel Code list index.

15                     The base station shall set this field to the index of the record  
 16                     in the Supplemental Channel Code list.

17       FOR\_SCH-  
 18       \_NUM\_BITS\_IDX   - Forward Supplemental Channel number of information bits  
 19                     index.

20                     If USE\_FLEX\_NUM\_BITS is equal to '0' or if  
 21                     USE\_FLEX\_NUM\_BITS is equal to '1' and  
 22                     FSCH\_NBIT\_TABLE\_ID for FOR\_SCH\_ID is equal to '0000',  
 23                     then the base station shall set this field according to Table  
 24                     3.7.3.3.2.37-4 to indicate the number of information bits per  
 25                     frame and the length of the CRC field for the Forward  
 26                     Supplemental Channel identified by FOR\_SCH\_ID  
 27                     corresponding to SCCL\_INDEX.

28                     If USE\_FLEX\_NUM\_BITS is equal to '1' and  
 29                     FSCH\_NBIT\_TABLE\_ID[FOR\_SCH\_ID] is not equal to '0000',  
 30                     then the base station shall set the FOR\_SCH\_NUM\_BITS\_IDX  
this field to indicate that the number of information bits per  
 31                     frame for the Forward Supplemental channel identified by  
 32                     FOR\_SCH\_ID to be  
 33                     NUM\_BITS[FSCH\_NBIT\_TABLE\_ID[FOR\_SCH\_ID]][FOR\_SCH\_N  
 34                     UM\_BITS\_IDX] and the number of CRC bits per frame for the  
Forward Supplemental channel identified by FOR SCH ID to  
be  
CRC LEN IDX[FSCH\_NBIT\_TABLE\_ID[FOR SCH ID]][FOR SC  
H NUM BITS IDX].

1                   The FOR\_SCH\_NUM\_BITS\_IDX field also specifies the number  
 2                   of CRC bits per frame for the Forward Supplemental Channel  
 3                   identified by FOR\_SCH\_ID. The number of CRC bits per frame  
 4                   is specified by CRC\_LEN\_IDX  
 5                   [uSCH\_NBIT\_TABLE\_ID[FOR\_SCH\_ID]][FOR\_SCH\_NUM\_BITS\_  
 6                   IDX] and Table 3.7.5.20-4.

- 7        NUM\_REV\_SCH    - Number of Reverse Supplemental Channel records.  
 8                   If SCH\_INCL is set to '0', the base station shall omit this field;  
 9                   otherwise, the base station shall set this field as follows:  
 10                  The base station shall set this field to the number of the  
 11                  Reverse Supplemental Channels need to be updated.

12       If NUM\_REV\_SCH is included and not equal to '00000', the base station shall include  
 13        NUM\_REV\_SCH occurrence of the following three fields:

- 14       REV\_SCH\_ID    - Reverse Supplemental Channel identifier.  
 15                   The base station shall set this field to the identifier of the  
 16                  Reverse Supplemental Channel.
- 17       REV\_WALSH\_ID   - Reverse Supplemental Channel Walsh cover Identifier.  
 18                   The base station shall set this field according to Table  
 19                  3.7.3.3.2.37-1 to indicate the Walsh cover ID that the mobile  
 20                  station is to use when transmitting at the rate specified by  
 21                  REV\_SCH\_NUM\_BITS\_IDX on the Reverse Supplemental  
 22                  Channel specified by REV\_SCH\_ID. If only one reverse  
 23                  supplemental channel is assigned, the base station should set  
 24                  this field to the default value for the REV\_WALSH\_ID as  
 25                  specified in 2.6.4.2.

- 26       REV\_SCH-  
 27       \_NUM\_BITS\_IDX   - Reverse Supplemental Channel number of bits per frame  
 28                  index.  
 29                   If USE\_FLEX\_NUM\_BITS is equal to '0' or if  
 30                  USE\_FLEX\_NUM\_BITS is equal to '1' and  
 31                  RSCH\_NBIT\_TABLE\_ID[REV\_SCH\_ID] is equal to '0000', then  
 32                  the base station shall set this field according to Table  
 33                  3.7.3.3.2.37-2 to indicate the Reverse Supplemental Channel  
 34                  number of information bits per frame and the CRC bits per  
 35                  frame, corresponding to REV\_WALSH\_ID field.

36       If    USE\_FLEX\_NUM\_BITS    is    equal    to    '1'    and  
 37        RSCH\_NBIT\_TABLE\_ID[REV\_SCH\_ID]    is    not    equal    to    '0000',  
 38        then    the    base    station    shall    set    the    REV\_SCH\_NUM\_BITS\_IDX  
 39                  this    field    to    indicate    the    Reverse    Supplemental  
 40                  Channel    number    of    information    bits    per    frame,  
 41                  corresponding    to    REV\_WALSH\_ID    field    to    be  
 42                  NUM\_BITS[RSCH\_NBIT\_TABLE\_ID[REV\_SCH\_ID]]  
 43                  [REV\_SCH\_NUM\_BITS\_IDX] and the Reverse Supplemental  
 44                  Channel number of CRC bits per frame corresponding to  
 45                  REV WALSH ID    field    to    be

1                   CRC\_LEN\_IDX[RSCH\_NBIT\_TABLE\_ID[REV\_SCH\_ID]]  
 2                   [REV\_SCH\_NUM\_BITS\_IDX].

4           NUM\_PILOTS - Number of pilots included in the message.  
 5                   The base station shall set this field to the number of pilots  
 6                   included in the message. The base station shall set this field  
 7                   to an integer that is equal to or greater than 1.

8           SRCH\_OFFSET\_INCL - Target pilot channel search window offset included.  
 9                   If the SRCH\_OFFSET field is included in the following records,  
 10                  the base station shall set this field to '1'; otherwise, the base  
 11                  station shall set this field to '0'.

12          The base station shall include one occurrence of the following record for each of the  
 13          NUM\_PILOTS pilots included in the message:

14           PILOT\_PN - Pilot PN sequence offset index.  
 15                   The base station shall set this field to the pilot PN sequence  
 16                   offset for this pilot in units of 64 PN chips.

17           SRCH\_OFFSET - Target pilot channel search window offset.  
 18                   If SRCH\_OFFSET\_INCL equals to '1', then the base station  
 19                  shall set this field to the value shown in Table 2.6.6.2.1-2  
 20                  corresponding to the search window offset to be used by the  
 21                  mobile station for this target pilot. Otherwise, the base  
 22                  station shall omit this field.

23           ADD\_PILOT\_REC\_INCL - Additional pilot information included indicator.  
 24                   The base station shall set this field to '1' if additional pilot  
 25                  information listed in PILOT\_REC\_TYPE and RECORD\_LEN  
 26                  fields are included. The base station shall set this field to '0' if  
 27                  the corresponding pilot is the common pilot and there is no  
 28                  additional pilot information included.

29           PILOT\_REC\_TYPE - Pilot record type.  
 30                   If ADD\_PILOT\_REC\_INCL is set to '1', the base station shall  
 31                  set this field to the PILOT\_REC\_TYPE value shown in Table  
 32                  3.7.2.3.2.21-6 corresponding to the type of Pilot Record  
 33                  specified by this record.

34                   If ADD\_PILOT\_REC\_INCL is set to '0', the base station shall  
 35                  omit this field.

36           RECORD\_LEN - Pilot record length.  
 37                   If ADD\_PILOT\_REC\_INCL is set to '1', the base station shall  
 38                  set this field to the number of octets in the type-specific fields  
 39                  of this pilot record.

40                   If ADD\_PILOT\_REC\_INCL is set to '0', the base station shall  
 41                  omit this field.

42           Type-specific fields - Pilot record type-specific fields.

1                   If ADD\_PILOT\_REC\_INCL is set to ‘1’, the base station shall  
 2                   include type-specific fields based on the PILOT\_REC\_TYPE of  
 3                   this pilot record as described in 3.7.6.1.

4                   If ADD\_PILOT\_REC\_INCL is set to ‘0’, the base station shall  
 5                   omit this field.

- 6
- 7           PWR\_COMB\_IND     - Power control symbol combining indicator.  
 8                   If the Forward Traffic Channel associated with this pilot will  
 9                   carry the same closed-loop power control subchannel bits as  
 10                  that of the previous pilot in this message, the base station  
 11                  shall set this field to ‘1’; otherwise, the base station shall set  
 12                  this field to ‘0’. The base station shall set this field to ‘0’ in  
 13                  the first record in the pilot list.
- 14           CODE\_CHAN\_FCH    - Code channel on the Fundamental Channel.  
 15                   If a Radio Configuration associated with Spreading Rate 1 is  
 16                   used, the base station shall set this field to the code channel  
 17                   index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile  
 18                   station is to use on the Fundamental Channel of the Forward  
 19                   Traffic Channel. If a Radio Configuration associated with  
 20                   Spreading Rate 3 is used, the base station shall set this field  
 21                   to the code channel index that the mobile station is to use for  
 22                   the Fundamental Channel on the center SR3 frequency.  
 23                   If Radio Configuration 1, 2, 3, or 5 (see 3.1.3.1.2 of [2]) is  
 24                   used, the base station shall set this field in the range 1 to 63  
 25                   inclusive. If Radio Configuration 4, 6 or 8 is used, the base  
 26                   station shall set this field in the range 1 to 127 inclusive. If  
 27                   Radio Configuration 7 or 9 is used, the base station shall set  
 28                   this field in the range 1 to 255 inclusive.
- 29           QOF\_MASK\_ID\_FCH - Quasi-orthogonal function index on the Fundamental  
 30                   Channel.  
 31                   If a Radio Configuration associated with Spreading Rate 1 is  
 32                   used, the base station shall set this field to the index of the  
 33                   Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]). If a  
 34                   Radio Configuration associated with Spreading Rate 3 is used,  
 35                   the base station shall set this field to the index of the Quasi-  
 36                   orthogonal function on the center SR3 frequency.
- 37           NUM\_SCH        - Number of Supplemental Channel records.  
 38                   If SCH\_INCL is set to ‘0’, the base station shall omit this field;  
 39                   otherwise, the base station shall set this field as follows:  
 40                   The base station shall set this field to the number of the  
 41                   Supplemental Channel records need to be updated.
- 42           If NUM\_SCH is included and not equal to ‘00000’, the base station shall include NUM\_SCH  
 43                   occurrence of the following five fields:
- 44           FOR\_SCH\_ID      - Forward Supplemental Channel identifier.

- |                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                     | The base station shall set this field the identifier of the Forward Supplemental Channel pertaining to this record.                                                                                                                                                                                                                                                                                                                                                                               |
| SCCL_INDEX          | <ul style="list-style-type: none"> <li>- Supplemental Channel Code list index.</li> </ul> <p>The base station shall set this field to the index of the record in the Supplemental Channel Code list.</p>                                                                                                                                                                                                                                                                                          |
| PILOT_INCL          | <ul style="list-style-type: none"> <li>- The corresponding pilot included in Supplemental Channel Active Set indicator.</li> </ul> <p>The base station shall set this field to '1' if the corresponding pilot is included in the Active Set of Supplemental Channel; otherwise, the base station shall set this field to '0'.</p>                                                                                                                                                                 |
| E_CHAN_SCH          | <ul style="list-style-type: none"> <li>- Code channel on the Supplemental Channel.</li> </ul> <p>If PILOT_INCL is included and set to '1', the base station shall set this field as follows; otherwise, the base station shall omit this field.</p> <p>The base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the Supplemental Channel of the Forward Traffic Channel indexed by SCCL_INDEX.</p>              |
| MASK_ID_SCH         | <ul style="list-style-type: none"> <li>- Quasi-orthogonal function index on the Supplemental Channel.</li> </ul> <p>If PILOT_INCL is included and set to '1', the base station shall set this field as follows; otherwise, the base station shall omit this field.</p> <p>The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]).</p>                                                                                                |
| H_INFO_INCL         | <ul style="list-style-type: none"> <li>- 3X FCH information included indicator.</li> </ul> <p>If the 3X Fundamental Channel information is included, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.</p> <p>base station shall include NUM_PILOTS occurrences of the following record if _INFO_INCL is set to '1'. The base station shall use the same order for the following is used for the PILOT_PN fields listed in this message.</p> |
| FCH_LOW_INCL        | <ul style="list-style-type: none"> <li>- FCH code channel on the lowest SR3 frequency included indicator.</li> </ul> <p>If the FCH on the lowest SR3 frequencies has a different code channel than the FCH on the center SR3 frequency, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.</p>                                                                                                                                                |
| OF_MASK_ID-_FCH_LOW | <ul style="list-style-type: none"> <li>- QOF index for the FCH on the lowest SR3 frequency.</li> </ul> <p>If 3X_FCH_LOW_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:</p>                                                                                                                                                                                                                                              |

The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]) corresponding to the QOF index for the FCH on the lowest SR3 frequency.

## CODE\_CHAN-

- Code channel for the FCH on the lowest SR3 frequency.  
If 3X\_FCH\_LOW\_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the FCH on the lowest SR3 frequency. If Radio Configuration 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.

### 3X\_FCH\_HIGH\_INCL

- FCH code channel on the highest SR3 frequency included indicator.  
If the FCH on the highest SR3 frequencies has a different code channel than the FCH on the center SR3 frequency, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

QOF\_MASK\_ID-

- QOF index for the FCH on the highest SR3 frequency.  
If 3X\_FCH\_HIGH\_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:  
The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2] corresponding to the QOF index for the FCH on the highest SR3 frequency.

## CODE\_CHAN-

- Code channel for the FCH on the highest SR3 frequency.  
If 3X\_FCH\_HIGH\_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the FCH on the highest SR3 frequency. If Radio Configuration 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.

### 3X\_SCH\_INFO\_INCL

- 3X SCH information included indicator.  
If SCH\_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

If the 3X Supplemental Channel information is included, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.

The base station shall include NUM\_SCH occurrences of the following seven fields record if 3X\_SCH\_INFO\_INCL is included and set to '1'.

FOR\_SCH\_ID - Forward Supplemental Channel identifier.

The base station shall set this field the identifier of the Forward Supplemental Channel pertaining to this record.

3X\_SCH\_LOW\_INCL - SCH code channel on the lowest SR3 frequency included indicator.

If the SCH on the lowest SR3 frequencies has a different code channel than the SCH on the center SR3 frequency, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.

QOF\_MASK\_ID-

\_SCH\_LOW - QOF index for the SCH on the lowest SR3 frequency.

If 3X\_SCH\_LOW\_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]) corresponding to the QOF index for the SCH on the lowest SR3 frequency.

CODE\_CHAN-

\_SCH\_LOW - Code channel for the SCH on the lowest SR3 frequency.

If 3X\_SCH\_LOW\_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the SCH on the lowest SR3 frequency. If Radio Configuration 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.

3X\_SCH\_HIGH\_INCL - SCH code channel on the highest SR3 frequency included indicator.

If the SCH on the highest SR3 frequencies has a different code channel than the SCH on the center SR3 frequency, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.

QOF\_MASK\_ID-

\_SCH\_HIGH - QOF index for the SCH on the highest SR3 frequency.

1           If 3X\_SCH\_HIGH\_INCL is set to ‘0’, the base station shall omit  
 2           this field; otherwise, the base station shall set this field as  
 3           follows:

4           The base station shall set this field to the index of the Quasi-  
 5           orthogonal function (see Table 3.1.3.1.12-2 of [2])  
 6           corresponding to the QOF index for the SCH on the highest  
 7           SR3 frequency.

8           CODE\_CHAN-  
 9                \_SCH\_HIGH

- Code channel for the SCH on the highest SR3 frequency.

10          If 3X\_SCH\_HIGH\_INCL is set to ‘0’, the base station shall omit  
 11           this field; otherwise, the base station shall set this field as  
 12           follows:

13          The base station shall set this field to the code channel index  
 14           (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is  
 15           to use on the SCH on the highest SR3 frequency. If Radio  
 16           Configuration 6 or 8 is used, the base station shall set this  
 17           field in the range 1 to 127 inclusive. If Radio Configuration 7  
 18           or 9 is used, the base station shall set this field in the range 1  
 19           to 255 inclusive.

20          If the CH\_IND field is set to ‘010’ or ‘110’, the base station shall include the following fields:

21            NUM\_FOR\_SCH    - Number of Forward Supplemental Channel records.  
 22                            If SCH\_INCL is set to ‘0’, the base station shall omit this field;  
 23                            otherwise, the base station shall set this field as follows:  
 24                            The base station shall set this field to the number of the  
 25                            Forward Supplemental Channel records need to be updated.

26          If NUM\_FOR\_SCH is included and not equal to ‘00000’, the base station shall include  
 27            NUM\_FOR\_SCH occurrence of the following three fields:

28            FOR\_SCH\_ID    - Forward Supplemental Channel identifier.  
 29                            The base station shall set this field to identifier of the Forward  
 30                            Supplemental Channel.

31            SCCL\_INDEX    - Supplemental Channel Code list index.  
 32                            The base station shall set this field to the index of the record  
 33                            in the Supplemental Channel Code list.

34            FOR\_SCH-  
 35                \_NUM\_BITS\_IDX    - Forward Supplemental Channel number of information bits  
 36                                    index.

If USE\_FLEX\_NUM\_BITS is equal to '0' or if USE\_FLEX\_NUM\_BITS is equal to '1' and FSCH\_NBIT\_TABLE\_ID for FOR\_SCH\_ID is equal to '0000', then the base station shall set this field according to Table 3.7.3.3.2.37-4 to indicate the number of information bits per frame and the length of the CRC field for the Forward Supplemental Channel identified by FOR\_SCH\_ID corresponding to SCCL\_INDEX.

If USE\_FLEX\_NUM\_BITS<sub>s</sub> is equal to '1' and FSCH\_NBIT\_TABLE\_ID[FOR\_SCH\_ID] is not equal to '0000', then the base station shall set the FOR\_SCH\_NUM\_BITS\_IDX this field to indicate that the number of information bits per frame for the Forward Supplemental channel identified by FOR\_SCH\_ID to be NUM\_BITS[FSCH\_NBIT\_TABLE\_ID[FOR\_SCH\_ID]][FOR\_SCH\_NUM\_BITS\_IDX] and the number of CRC bits per frame for the Forward Supplemental channel identified by FOR SCH ID to be  
CRC\_LEN\_IDX[FSCH\_NBIT\_TABLE\_ID[FOR SCH ID]][FOR SCH\_NUM\_BITS\_IDX].

~~The FOR\_SCH\_NUM\_BITS\_IDX field also specifies the number of CRC bits per frame for the Forward Supplemental Channel identified by FOR\_SCH\_ID. The number of CRC bits per frame is specified by CRC\_LEN\_IDX[FSCH\_NBIT\_TABLE\_ID[FOR\_SCH\_ID]][FOR\_SCH\_NUM\_BITS\_IDX] and Table 3.7.5.20-4.~~

- NUM\_REV\_SCH - Number of Reverse Supplemental Channel records.  
If SCH\_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:  
The base station shall set this field to the number of the Reverse Supplemental Channels need to be updated.

If NUM\_REV\_SCH is included and not equal to '00000', the base station shall include NUM\_REV\_SCH occurrence of the following three fields:

- REV\_SCH\_ID - Reverse Supplemental Channel identifier.  
The base station shall set this field to the identifier of the Reverse Supplemental Channel.
- REV\_WALSH\_ID - Reverse Supplemental Channel Walsh cover Identifier.

1                   The base station shall set this field according to Table  
 2                   3.7.3.3.2.37-1 to indicate the Walsh cover ID that the mobile  
 3                   station is to use when transmitting at the rate specified by  
 4                   REV\_SCH\_NUM\_BITS\_IDX on the Reverse Supplemental  
 5                   Channel specified by REV\_SCH\_ID. If only one reverse  
 6                   supplemental channel is assigned, the base station should set  
 7                   this field to the default value for the REV\_WALSH\_ID as  
 8                   specified in 2.6.4.2.

9                   REV\_SCH-  
 10                  \_NUM\_BITS\_IDX - Reverse Supplemental Channel number of bits per frame  
 11                  index.

12                  If USE\_FLEX\_NUM\_BITS is equal to '0' or if  
 13                  USE\_FLEX\_NUM\_BITS is equal to '1' and  
 14                  RSCH\_NBIT\_TABLE\_ID[REV\_SCH\_ID] is equal to '0000', then  
 15                  the base station shall set this field according to Table  
 16                  3.7.3.3.2.37-2 to indicate the Reverse Supplemental Channel  
 17                  number of information bits per frame and the number of CRC  
 18                  bits per frame, corresponding to REV\_WALSH\_ID field.

19                  If USE\_FLEX\_NUM\_BITS is equal to '1' and  
 20                  RSCH\_NBIT\_TABLE\_ID[REV\_SCH\_ID] is not equal to '0000', then  
 21                  the base station shall set the REV\_SCH\_NUM\_BITS\_IDX field  
 22                  to indicate the Reverse Supplemental Channel number of  
 23                  information bits per frame, corresponding to REV\_WALSH\_ID  
 24                  field to be NUM\_BITS[RSCH\_NBIT\_TABLE\_ID[REV\_SCH\_ID]]  
 25                  [REV\_SCH\_NUM\_BITS\_IDX]and the Reverse Supplemental  
 26                  Channel number of CRC bits per frame, corresponding to  
 27                  REV WALSH ID field to be  
 28                  CRC LEN IDX[RSCH\_NBIT\_TABLE\_ID[REV\_SCH\_ID]]  
 29                  [REV SCH\_NUM BITS IDX].

30  
 31                  NUM\_PILOTS - Number of pilots included in the message.

32                  The base station shall set this field to the number of pilots  
 33                  included in the message. The base station shall set this field  
 34                  to an integer that is equal to or greater than 1.

35                  SRCH\_OFFSET\_INCL - Target pilot channel search window offset included.

36                  If the SRCH\_OFFSET field is included in the following records,  
 37                  the base station shall set this field to '1'; otherwise, the base  
 38                  station shall set this field to '0'.

39                  The base station shall include one occurrence of the following record for each of the  
 40                  NUM\_PILOTS pilots included in the message:

41                   PILOT\_PN - Pilot PN sequence offset index.

42                  The base station shall set this field to the pilot PN sequence  
 43                  offset for this pilot in units of 64 PN chips.

- 1           SRCH\_OFFSET   - Target pilot channel search window offset.  
 2           If SRCH\_OFFSET\_INCL equals to '1', then the base station  
 3           shall set this field to the value shown in Table 2.6.6.2.1-2  
 4           corresponding to the search window offset to be used by the  
 5           mobile station for this target pilot. Otherwise, the base  
 6           station shall omit this field.
- 7           ADD\_PILOT\_REC\_INCL - Additional pilot information included indicator.  
 8           The base station shall set this field to '1' if additional pilot  
 9           information listed in PILOT\_REC\_TYPE and RECORD\_LEN  
 10          fields are included. The base station shall set this field to '0' if  
 11          the corresponding pilot is the common pilot and there is no  
 12          additional pilot information included.
- 13          PILOT\_REC\_TYPE - Pilot record type.  
 14          If ADD\_PILOT\_REC\_INCL is set to '1', the base station shall  
 15          set this field to the PILOT\_REC\_TYPE value shown in Table  
 16          3.7.2.3.2.21-6 corresponding to the type of Pilot Record  
 17          specified by this record.  
 18          If ADD\_PILOT\_REC\_INCL is set to '0', the base station shall  
 19          omit this field.
- 20          RECORD\_LEN - Pilot record length.  
 21          If ADD\_PILOT\_REC\_INCL is set to '1', the base station shall  
 22          set this field to the number of octets in the type-specific fields  
 23          of this pilot record.  
 24          If ADD\_PILOT\_REC\_INCL is set to '0', the base station shall  
 25          omit this field.
- 26          Type-specific fields - Pilot record type-specific fields.  
 27          If ADD\_PILOT\_REC\_INCL is set to '1', the base station shall  
 28          include type-specific fields based on the PILOT\_REC\_TYPE of  
 29          this pilot record as described in 3.7.6.1.  
 30          If ADD\_PILOT\_REC\_INCL is set to '0', the base station shall  
 31          omit this field.
- 32  
 33          PWR\_COMB\_IND - Power control symbol combining indicator.  
 34          If the Forward Traffic Channel associated with this pilot will  
 35          carry the same closed-loop power control subchannel bits as  
 36          that of the previous pilot in this message, the base station  
 37          shall set this field to '1'; otherwise, the base station shall set  
 38          this field to '0'. The base station shall set this field to '0' in  
 39          the first record in the pilot list.

- 1       CODE\_CHAN\_DCCH     - Code channel on the Dedicated Control Channel.  
 2  
 3  
 4  
 5  
 6  
 7  
 8  
 9  
 10  
 If a Radio Configuration associated with Spreading Rate 1 is used, the base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2] that the mobile station is to use on the Dedicated Control Channel of the Forward Traffic Channel. If a Radio Configuration associated with Spreading Rate 3, the base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use for the Dedicated Control Channel on the center SR3 frequency.
- 11  
 12  
 13  
 14  
 15  
 16  
 If Radio Configuration 1, 2, 3, or 5 (see 3.1.3.1.2 of [2]) is used, the base station shall set this field in the range 1 to 63 inclusive. If Radio Configuration 4, 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.
- 17      QOF\_MASK\_ID\_DCCH    - Quasi-orthogonal function index on the Dedicated Control Channel.  
 18  
 19  
 20  
 21  
 22  
 23  
 24  
 If a Radio Configuration associated with Spreading Rate 1 is used, the base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]). If a Radio Configuration associated with Spreading Rate 3 is used, the base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]).
- 25      NUM\_SCH            - Number of Supplemental Channel records.  
 26  
 27  
 If SCH\_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:  
 28  
 29  
 The base station shall set this field to the number of the Supplemental Channel records need to be updated.
- 30      If NUM\_SCH is included and not equal to '00000', the base station shall include NUM\_SCH occurrence of the following five fields:
- 32      FOR\_SCH\_ID          - Forward Supplemental Channel identifier  
 33  
 34  
 The base station shall set this field to the identifier of the Forward Supplemental Channel pertaining to this record.
- 35      SCCL\_INDEX          - Supplemental Channel Code list index.  
 36  
 37  
 The base station shall set this field to the index of the record in the Supplemental Channel Code list.
- 38      PILOT\_INCL          - The corresponding pilot included in Supplemental Channel Active Set indicator.  
 39  
 40  
 41  
 The base station shall set this field to '1' if the corresponding pilot is included in the Active Set of Supplemental Channel; otherwise, the base station shall set this field to '0'.

- 1       CODE\_CHAN\_SCH    -   Code channel on the Supplemental Channel.  
 2                          The base station shall set this field to the code channel index  
 3                          (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is  
 4                          to use on the Supplemental Channel of the Forward Traffic  
 5                          Channel indexed by SCCL\_INDEX.
- 6       QOF\_MASK\_ID\_SCH   -   Quasi-orthogonal function index on the Supplemental  
 7                          Channel.  
 8                          If SCH\_INCL is set to '0', the base station shall omit this field;  
 9                          otherwise, the base station shall set this field as follows:  
 10                         The base station shall set this field to the index of the Quasi-  
 11                         orthogonal function (see Table 3.1.3.1.12-2 of [2]).
- 12      3X\_DCCH\_INFO\_INCL   -   3X DCCH information included indicator.  
 13                          If the 3X Dedicated Control Channel information is included,  
 14                          the base station shall set this field to '1'; otherwise, the base  
 15                          station shall set this field to '0'.  
 16                          The base station shall include NUM\_PILOTS occurrences of the following record if  
 17                          3X\_DCCH\_INFO\_INCL is set to '1'. The base station shall use the same order for the  
 18                          following fields as is used for the PILOT\_PN fields listed in this message.
- 19      3X\_DCCH\_LOW\_INCL   -   DCCH code channel on the lowest SR3 frequency included  
 20                          indicator.  
 21                          If the DCCH on the lowest SR3 frequencies has a different  
 22                          code channel than the DCCH on the center SR3 frequency,  
 23                          the base station shall set this field to '1'; otherwise, the base  
 24                          station shall set this field to '0'.
- 25      QOF\_MASK\_ID-  
 26                          \_DCCH\_LOW   -   QOF index for the DCCH on the lowest SR3 frequency.  
 27                          If 3X\_DCCH\_LOW\_INCL is set to '0', the base station shall  
 28                          omit this field; otherwise, the base station shall set this field  
 29                          as follows:  
 30                          The base station shall set this field to the index of the Quasi-  
 31                         orthogonal function (see Table 3.1.3.1.12-2 of [2])  
 32                         corresponding to the QOF index for the DCCH on the lowest  
 33                         SR3 frequency.
- 34      CODE\_CHAN-  
 35                          \_DCCH\_LOW   -   Code channel for the DCCH on the lowest SR3 frequency.  
 36                          If 3X\_DCCH\_LOW\_INCL is set to '0', the base station shall  
 37                          omit this field; otherwise, the base station shall set this field  
 38                          as follows:  
 39                          The base station shall set this field to the code channel index  
 40                          (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is  
 41                          to use on the DCCH on the lowest SR3 frequency. If Radio  
 42                          Configuration 6 or 8 is used, the base station shall set this  
 43                          field in the range 1 to 127 inclusive. If Radio Configuration 7  
 44                          or 9 is used, the base station shall set this field in the range 1  
 45                          to 255 inclusive.

- 1       3X\_DCCH\_HIGH\_INCL   – DCCH code channel on the highest SR3 frequency included  
 2                            indicator.
- 3                            If the DCCH on the highest SR3 frequencies has a different  
 4                            code channel than the DCCH on the center SR3 frequency,  
 5                            the base station shall set this field to ‘1’; otherwise, the base  
 6                            station shall set this field to ‘0’.
- 7       QOF\_MASK\_ID-  
 8                            \_DCCH\_HIGH   – QOF index for the DCCH on the highest SR3 frequency.  
 9                            If 3X\_DCCH\_HIGH\_INCL is set to ‘0’, the base station shall  
 10                          omit this field; otherwise, the base station shall set this field  
 11                          as follows:  
 12                          The base station shall set this field to the index of the Quasi-  
 13                          orthogonal function (see Table 3.1.3.1.12-2 of [2])  
 14                          corresponding to the QOF index for the DCCH on the highest  
 15                          SR3 frequency.
- 16       CODE\_CHAN-  
 17                            \_DCCH\_HIGH   – Code channel for the DCCH on the highest SR3 frequency.  
 18                            If 3X\_DCCH\_HIGH\_INCL is set to ‘0’, the base station shall  
 19                          omit this field; otherwise, the base station shall set this field  
 20                          as follows:  
 21                          The base station shall set this field to the code channel index  
 22                          (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is  
 23                          to use on the DCCH on the highest SR3 frequency. If Radio  
 24                          Configuration 6 or 8 is used, the base station shall set this  
 25                          field in the range 1 to 127 inclusive. If Radio Configuration 7  
 26                          or 9 is used, the base station shall set this field in the range 1  
 27                          to 255 inclusive.
- 28       3X\_SCH\_INFO\_INCL   – 3X SCH information included indicator.  
 29                            If SCH\_INCL is set to ‘0’, the base station shall omit this field;  
 30                          otherwise, the base station shall set this field as follows:  
 31                          If the 3X Supplemental Channel information is included, the  
 32                          base station shall set this field to ‘1’; otherwise, the base  
 33                          station shall set this field to ‘0’.
- 34       The base station shall include NUM\_SCH occurrences of the following seven fields record if  
 35                          3X\_SCH\_INFO\_INCL is included and set to ‘1’.
- 36       FOR\_SCH\_ID   – Forward Supplemental Channel identifier.  
 37                           The base station shall set this field the identifier of the  
 38                          Forward Supplemental Channel pertaining to this record.
- 39       3X\_SCH\_LOW\_INCL   – SCH code channel on the lowest SR3 frequency included  
 40                          indicator.  
 41                          If the SCH on the lowest SR3 frequencies has a different code  
 42                          channel than the SCH on the center SR3 frequency, the base  
 43                          station shall set this field to ‘1’; otherwise, the base station  
 44                          shall set this field to ‘0’.
- 45       QOF\_MASK\_ID-

- 1            \_SCH\_LOW    -    QOF index for the SCH on the lowest SR3 frequency.  
 2            If 3X\_SCH\_LOW\_INCL is set to '0', the base station shall omit  
 3            this field; otherwise, the base station shall set this field as  
 4            follows:  
 5            The base station shall set this field to the index of the Quasi-  
 6            orthogonal function (see Table 3.1.3.1.12-2 of [2])  
 7            corresponding to the QOF index for the SCH on the lowest  
 8            SR3 frequency.
- 9            CODE\_CHAN-  
 10          \_SCH\_LOW    -    Code channel for the SCH on the lowest SR3 frequency.  
 11          If 3X\_SCH\_LOW\_INCL is set to '0', the base station shall omit  
 12          this field; otherwise, the base station shall set this field as  
 13          follows:  
 14          The base station shall set this field to the code channel index  
 15          (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is  
 16          to use on the SCH on the lowest SR3 frequency. If Radio  
 17          Configuration 6 or 8 is used, the base station shall set this  
 18          field in the range 1 to 127 inclusive. If Radio Configuration 7  
 19          or 9 is used, the base station shall set this field in the range 1  
 20          to 255 inclusive.
- 21          3X\_SCH\_HIGH\_INCL    -    SCH code channel on the highest SR3 frequency included  
 22          indicator.  
 23          If the SCH on the highest SR3 frequencies has a different code  
 24          channel than the SCH on the center SR3 frequency, the base  
 25          station shall set this field to '1'; otherwise, the base station  
 26          shall set this field to '0'.
- 27          QOF\_MASK\_ID-  
 28          \_SCH\_HIGH    -    QOF index for the SCH on the highest SR3 frequency.  
 29          If 3X\_SCH\_HIGH\_INCL is set to '0', the base station shall omit  
 30          this field; otherwise, the base station shall set this field as  
 31          follows:  
 32          The base station shall set this field to the index of the Quasi-  
 33          orthogonal function (see Table 3.1.3.1.12-2 of [2])  
 34          corresponding to the QOF index for the SCH on the highest  
 35          SR3 frequency.
- 36          CODE\_CHAN-  
 37          \_SCH\_HIGH    -    Code channel for the SCH on the highest SR3 frequency.  
 38          If 3X\_SCH\_HIGH\_INCL is set to '0', the base station shall omit  
 39          this field; otherwise, the base station shall set this field as  
 40          follows:

1           The base station shall set this field to the code channel index  
 2           (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is  
 3           to use on the SCH on the highest SR3 frequency. If Radio  
 4           Configuration 6 or 8 is used, the base station shall set this  
 5           field in the range 1 to 127 inclusive. If Radio Configuration 7  
 6           or 9 is used, the base station shall set this field in the range 1  
 7           to 255 inclusive.

8  
 9       If the CH\_IND field is set to '111', the base station shall include the following fields:

10      NUM\_FOR\_SCH   - Number of Forward Supplemental Channel records.

11  
 12     If SCH\_INCL is set to '0', the base station shall omit this field;  
      otherwise, the base station shall set this field as follows:

13  
 14     The base station shall set this field to the number of the  
      Forward Supplemental Channel records need to be updated.

15       If NUM\_FOR\_SCH is included and not equal to '00000', the base station shall include  
 16       NUM\_FOR\_SCH occurrence of the following three fields:

17      FOR\_SCH\_ID   - Forward Supplemental Channel identifier.

18  
 19     The base station shall set this field to the identifier of the  
      Forward Supplemental Channel.

20      SCCL\_INDEX   - Supplemental Channel Code list index.

21  
 22     The base station shall set this field to the index of the record  
      in the Supplemental Channel Code list.

23      FOR\_SCH-

24      \_NUM\_BITS\_IDX   - Forward Supplemental Channel number of information bits  
 25       index.

26  
 27     If USE\_FLEX\_NUM\_BITS is equal to '0' or if  
 28     USE\_FLEX\_NUM\_BITS is equal to '1' and  
 29     FSCH\_NBIT\_TABLE\_ID for FOR\_SCH\_ID is equal to '0000',  
 30     then the base station shall set this field according to Table  
 31     3.7.3.3.2.37-4 to indicate the number of information bits per  
 32     frame and the length of the CRC field for the Forward  
 33     Supplemental Channel identified by FOR\_SCH\_ID  
      corresponding to SCCL\_INDEX.

34  
 35     If USE\_FLEX\_NUM\_BITS<sub>s</sub> is equal to '1' and  
 36     FSCH\_NBIT\_TABLE\_ID[FOR\_SCH\_ID] is not equal to '0000',  
 37     then the base station shall set the FOR\_SCH\_NUM\_BITS\_IDX  
this field to indicate that the number of information bits per  
 38     frame for the Forward Supplemental channel identified by  
 39     FOR\_SCH\_ID to be  
 40     NUM\_BITS[FSCH\_NBIT\_TABLE\_ID[FOR\_SCH\_ID]][FOR\_SCH\_N  
 41     UM\_BITS\_IDX] and the number of CRC bits per frame for the  
Forward Supplemental channel identified by FOR SCH ID to  
be  
CRC LEN IDX[FSCH NBIT TABLE ID[FOR SCH ID]][FOR SC

### H NUM BITS IDX].

The FOR\_SCH\_NUM\_BITS\_IDX field also specifies the number of CRC bits per frame for the Forward Supplemental Channel identified by FOR\_SCH\_ID. The number of CRC bits per frame is \_\_\_\_\_ specified by CRC\_LEN\_IDX[FSCH\_NBIT\_TABLE\_ID[FOR\_SCH\_ID]]||FOR\_SCH\_NUM\_BITS\_IDX and Table 3.7.5.20-4.

- NUM\_REV\_SCH** - Number of Reverse Supplemental Channel records.

If SCH\_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the number of the Reverse Supplemental Channels need to be updated.

If NUM\_REV\_SCH is included and not equal to '00000', the base station shall include NUM\_REV\_SCH occurrence of the following three fields:

- |              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| REV_SCH_ID   | <ul style="list-style-type: none"> <li>- Reverse Supplemental Channel identifier.<br/>The base station shall set this field to the identifier of the Reverse Supplemental Channel.</li> </ul>                                                                                                                                                                                                                                                                                                                                                      |
| REV_WALSH_ID | <ul style="list-style-type: none"> <li>- Reverse Supplemental Channel Walsh cover Identifier.<br/>The base station shall set this field according to Table 3.7.3.3.2.37-1 to indicate the Walsh cover ID that the mobile station is to use when transmitting at the rate specified by REV_SCH_NUM_BITS_IDX on the Reverse Supplemental Channel specified by REV_SCH_ID. If only one reverse supplemental channel is assigned, the base station should set this field to the default value for the REV_WALSH_ID as specified in 2.6.4.2.</li> </ul> |

- REV\_SCH-\_NUM\_BITS\_IDX - Reverse Supplemental Channel number of bits per frame index.

If USE\_FLEX\_NUM\_BITS is equal to '0' or if USE\_FLEX\_NUM\_BITS is equal to '1' and RSCH\_NBIT\_TABLE\_ID[REV\_SCH\_ID] is equal to '0000', then the base station shall set this field according to Table 3.7.3.3.2.37-2 to indicate the Reverse Supplemental Channel number of information bits per frame and the number of CRC bits per frame, corresponding to REV\_WALSH\_ID field.

If USE\_FLEX\_NUM\_BITS is equal to '1' and RSCH\_NBIT\_TABLE\_ID[REV\_SCH\_ID] is not equal to '0000', then the base station shall set the REV\_SCH\_NUM\_BITS\_IDX field to indicate the Reverse Supplemental Channel number of information bits per frame, corresponding to REV\_WALSH\_ID field to be NUM\_BITS[RSCH\_NBIT\_TABLE\_ID[REV\_SCH\_ID]] [REV\_SCH\_NUM\_BITS\_IDX]and the Reverse Supplemental Channel number of information bits per frame, corresponding

|    |                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                    |
|----|----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    |                                                                                                                                  | <u>to REV WALSH ID field to be to be</u>                                                                                                                                                                                                                                                                                                           |
| 1  |                                                                                                                                  | <u>CRC LEN IDX[RSCH_NBIT_TABLE_ID[REV_SCH_ID]]</u>                                                                                                                                                                                                                                                                                                 |
| 2  |                                                                                                                                  | <u>[REV_SCH_NUM_BITS_IDX]</u> .                                                                                                                                                                                                                                                                                                                    |
| 3  |                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                    |
| 4  |                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                    |
| 5  | NUM_PILOTS                                                                                                                       | - Number of pilots included in the message.                                                                                                                                                                                                                                                                                                        |
| 6  |                                                                                                                                  | The base station shall set this field to the number of pilots included in the message. The base station shall set this field to an integer that is equal to or greater than 1.                                                                                                                                                                     |
| 7  |                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                    |
| 8  |                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                    |
| 9  | SRCH_OFFSET_INCL                                                                                                                 | - Target pilot channel search window offset included.                                                                                                                                                                                                                                                                                              |
| 10 |                                                                                                                                  | If the SRCH_OFFSET field is included in the following records, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.                                                                                                                                                                              |
| 11 |                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                    |
| 12 |                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                    |
| 13 | The base station shall include one occurrence of the following record for each of the NUM_PILOTS pilots included in the message: |                                                                                                                                                                                                                                                                                                                                                    |
| 14 |                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                    |
| 15 | PILOT_PN                                                                                                                         | - Pilot PN sequence offset index.<br>The base station shall set this field to the pilot PN sequence offset for this pilot in units of 64 PN chips.                                                                                                                                                                                                 |
| 16 |                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                    |
| 17 |                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                    |
| 18 | SRCH_OFFSET                                                                                                                      | - Target pilot channel search window offset.<br>If SRCH_OFFSET_INCL equals to '1', then the base station shall set this field to the value shown in Table 2.6.6.2.1-2 corresponding to the search window offset to be used by the mobile station for this target pilot. Otherwise, the base station shall omit this field.                         |
| 19 |                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                    |
| 20 |                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                    |
| 21 |                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                    |
| 22 |                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                    |
| 23 |                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                    |
| 24 | ADD_PILOT_REC_INCL                                                                                                               | - Additional pilot information included indicator.<br>The base station shall set this field to '1' if additional pilot information listed in PILOT_REC_TYPE and RECORD_LEN fields are included. The base station shall set this field to '0' if the corresponding pilot is the common pilot and there is no additional pilot information included. |
| 25 |                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                    |
| 26 |                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                    |
| 27 |                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                    |
| 28 |                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                    |
| 29 |                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                    |
| 30 | PILOT_REC_TYPE                                                                                                                   | - Pilot record type.<br>If ADD_PILOT_REC_INCL is set to '1', the base station shall set this field to the PILOT_REC_TYPE value shown in Table 3.7.2.3.2.21-6 corresponding to the type of Pilot Record specified by this record.                                                                                                                   |
| 31 |                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                    |
| 32 |                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                    |
| 33 |                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                    |
| 34 |                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                    |
| 35 |                                                                                                                                  | If ADD_PILOT_REC_INCL is set to '0', the base station shall omit this field.                                                                                                                                                                                                                                                                       |
| 36 |                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                    |
| 37 | RECORD_LEN                                                                                                                       | - Pilot record length.<br>If ADD_PILOT_REC_INCL is set to '1', the base station shall set this field to the number of octets in the type-specific fields of this pilot record.                                                                                                                                                                     |
| 38 |                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                    |
| 39 |                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                    |
| 40 |                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                    |
| 41 |                                                                                                                                  | If ADD_PILOT_REC_INCL is set to '0', the base station shall omit this field.                                                                                                                                                                                                                                                                       |
| 42 |                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                    |
| 43 | Type-specific fields                                                                                                             | - Pilot record type-specific fields.                                                                                                                                                                                                                                                                                                               |

If ADD\_PILOT\_REC\_INCL is set to '1', the base station shall include type-specific fields based on the PILOT\_REC\_TYPE of this pilot record as described in 3.7.6.1.

If ADD\_PILOT\_REC\_INCL is set to '0', the base station shall omit this field.

- PWR\_COMB\_IND - Power control symbol combining indicator.  
If the Forward Traffic Channel associated with this pilot will carry the same closed-loop power control subchannel bits as that of the previous pilot in this message, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'. The base station shall set this field to '0' in the first record in the pilot list.
- CODE\_CHAN\_FCH - Code Channel on the Fundamental Channel.  
If a Radio Configuration associated with Spreading Rate 1 is used, the base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the Fundamental Channel of the Forward Traffic Channel. If a Radio Configuration associated with Spreading Rate 3 is used, the base station shall set this field to the code channel index that the mobile station is to use for the Fundamental Channel on the center SR3 frequency.  
If Radio Configuration 1, 2, 3, or 5 (see 3.1.3.1.2 of [2]) is used, the base station shall set this field in the range 1 to 63 inclusive. If Radio Configuration 4, 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.
- QOF\_MASK\_ID\_FCH - Quasi-orthogonal function index on the Fundamental Channel.  
If a Radio Configuration associated with Spreading Rate 1 is used, the base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]). If a Radio Configuration associated with Spreading Rate 3 is used, the base station shall set this field to the index of the Quasi-orthogonal function on the center SR3 frequency.
- CODE\_CHAN\_DCCH - Code channel on the DCCH.  
If a Radio Configuration associated with Spreading Rate 1 is used, the base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the Dedicated Control Channel of the Forward Traffic Channel. If a Radio Configuration associated with Spreading Rate 3 is used, the base station shall set this field to the code channel index that the mobile station is to use for the Dedicated Control Channel on the center SR3 frequency.

If Radio Configuration 1, 2, 3, or 5 (see 3.1.3.1.2 of [2]) is used, the base station shall set this field in the range 1 to 63 inclusive. If Radio Configuration 4, 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.

- 7      QOF\_MASK\_ID\_DCCH    - Quasi-orthogonal function index on the DCCH.  
8                             If a Radio Configuration associated with Spreading Rate 1 is  
9                             used, the base station shall set this field to the index of the  
10                            Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]). If a  
11                            Radio Configuration associated with Spreading Rate 1 is used,  
12                            the base station shall set this field to the index of the Quasi-  
13                            orthogonal function on the center SR3 frequency.
- 14      NUM\_SCH            - Number of Supplemental Channel records.  
15                            The base station shall set this field to the number of the  
16                            Supplemental Channel records need to be updated.

If NUM\_SCH is included and not equal to '00000', the base station shall include NUM\_SCH occurrence of the following fields:

- 19      FOR\_SCH\_ID        - Forward Supplemental Channel identifier.  
20                            The base station shall set this field to the identifier of the  
21                            Forward Supplemental Channel pertaining to this record.
- 22      SCCL\_INDEX        - Supplemental Channel Code list index.  
23                            The base station shall set this field to the index of the record  
24                            in the Supplemental Channel Code List Table.
- 25      PILOT\_INCL        - The corresponding pilot included in Supplemental Channel  
26                            Active Set indicator.  
27                            The base station shall set this field to '1' if the corresponding  
28                            pilot is included in the Active Set of Supplemental Channel;  
29                            otherwise, the base station shall set this field to '0'.
- 30      CODE\_CHAN\_SCH     - Code Channel on the Supplemental Channel.  
31                            If SCH\_INCL is set to '0', the base station shall omit this field;  
32                            otherwise, the base station shall set this field as follows:  
33                            The base station shall set this field to the code channel index  
34                            (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is  
35                            to use on the Supplemental Channel of the Forward Traffic  
36                            Channel indexed by SCCL\_INDEX.
- 37      QOF\_MASK\_ID\_SCH    - Quasi-orthogonal function index on the Supplemental  
38                            Channel.  
39                            If SCH\_INCL is set to '0', the base station shall omit this field;  
40                            otherwise, the base station shall set this field as follows:  
41                            The base station shall set this field to the index of the Quasi-  
42                            orthogonal function (see Table 3.1.3.1.12-2 of [2]).
- 43      3X\_FCH\_INFO\_INCL   - 3X FCH information included indicator.

- If the 3X Fundamental Channel information is included, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.
- 3X\_DCCH\_INFO\_INCL – 3X DCCH information included indicator.
- If the 3X Dedicated Control Channel information is included, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.
- The base station shall include NUM\_PILOTS occurrences of the following record if 3X\_FCH\_INFO\_INCL or 3X\_FCH\_INFO\_INCL is set to ‘1’. The base station shall use the same order for the following fields as is used for the PILOT\_PN fields listed in this message.
- 3X\_FCH\_LOW\_INCL – FCH code channel on the lowest SR3 frequency included indicator.
- If 3X\_FCH\_INFO\_INCL is set to ‘0’, the base station shall set omit this field; otherwise, the base station shall set this field as follows:
- If the FCH on the lowest SR3 frequencies has a different code channel than the FCH on the center SR3 frequency, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.
- QOF\_MASK\_ID-
- \_FCH\_LOW – QOF index for the FCH on the lowest SR3 frequency.
- If 3X\_FCH\_LOW\_INCL is included and set to ‘1’, the base station shall set this field as follows; otherwise, the base station shall omit this field:
- The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]) corresponding to the QOF index for the FCH on the lowest SR3 frequency.
- CODE\_CHAN-
- \_FCH\_LOW – Code channel for the FCH on the lowest SR3 frequency.
- If 3X\_FCH\_LOW\_INCL is included and set to ‘1’, the base station shall set this field as follows; otherwise, the base station shall omit this field:
- The base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the FCH on the lowest SR3 frequency. If Radio Configuration 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.
- 3X\_FCH\_HIGH\_INCL – FCH code channel on the highest SR3 frequency included indicator.
- If 3X\_FCH\_INFO\_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

1  
2  
3  
4  
If the FCH on the highest SR3 frequencies has a different code  
channel than the FCH on the center SR3 frequency, the base  
station shall set this field to '1'; otherwise, the base station  
shall set this field to '0'.

5           **QOF\_MASK\_ID-**

6            **\_FCH\_HIGH**

- QOF index for the FCH on the highest SR3 frequency.  
If 3X\_FCH\_HIGH\_INCL is included and set to '1', the base station shall set this field as follows; otherwise, the base station shall omit this field:

10          The base station shall set this field to the index of the Quasi-  
11          orthogonal function (see Table 3.1.3.1.12-2 of [2]  
12          corresponding to the QOF index for the FCH on the highest  
13          SR3 frequency.

14           **CODE\_CHAN-**

15            **\_FCH\_HIGH**

- Code channel for the FCH on the highest SR3 frequency.  
If 3X\_FCH\_HIGH\_INCL is included and set to '1', the base station shall set this field as follows; otherwise, the base station shall omit this field:

19          The base station shall set this field to the code channel index  
20          (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is  
21          to use on the FCH on the highest SR3 frequency. If Radio  
22          Configuration 6 or 8 is used, the base station shall set this  
23          field in the range 1 to 127 inclusive. If Radio Configuration 7  
24          or 9 is used, the base station shall set this field in the range 1  
25          to 255 inclusive.

26           **3X\_DCCH\_LOW\_INCL**

- DCCH code channel on the lowest SR3 frequency included indicator.

28          If 3X\_DCCH\_INFO\_INCL is set to '0', the base station shall  
29          omit this field; otherwise, the base station shall set this field  
30          as follows:

31          If the DCCH on the lowest SR3 frequencies has a different  
32          code channel than the DCCH on the center SR3 frequency,  
33          the base station shall set this field to '1'; otherwise, the base  
34          station shall set this field to '0'.

35           **QOF\_MASK\_ID-**

36            **\_DCCH\_LOW**

- QOF index for the DCCH on the lowest SR3 frequency.  
If 3X\_DCCH\_LOW\_INCL is included and set to '1', the base station shall set this field as follows; otherwise, the base station shall omit this field:

40          The base station shall set this field to the index of the Quasi-  
41          orthogonal function (see Table 3.1.3.1.12-2 of [2])  
42          corresponding to the QOF index for the DCCH on the lowest  
43          SR3 frequency.

- 1           CODE\_CHAN-
- 2           \_DCCH\_LOW - Code channel for the DCCH on the lowest SR3 frequency.
- 3           If 3X\_DCCH\_LOW\_INCL is included and set to '1', the base station shall set this field as follows; otherwise, the base station shall omit this field:
- 4           The base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the DCCH on the lowest SR3 frequency. If Radio Configuration 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.
- 5
- 6           3X\_DCCH\_HIGH\_INCL - DCCH code channel on the highest SR3 frequency included indicator.
- 7           If 3X\_DCCH\_INFO\_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:
- 8           If the DCCH on the highest SR3 frequencies has a different code channel than the DCCH on the center SR3 frequency, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.
- 9
- 10          QOF\_MASK\_ID-
- 11          \_DCCH\_HIGH - QOF index for the DCCH on the highest SR3 frequency.
- 12          If 3X\_DCCH\_HIGH\_INCL is included and set to '1', the base station shall set this field as follows; otherwise, the base station shall omit this field:
- 13          The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2] corresponding to the QOF index for the DCCH on the highest SR3 frequency.
- 14
- 15          CODE\_CHAN-
- 16          \_DCCH\_HIGH - Code channel for the DCCH on the highest SR3 frequency.
- 17          If 3X\_DCCH\_HIGH\_INCL is included and set to '1', the base station shall set this field as follows; otherwise, the base station shall omit this field:
- 18          The base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the DCCH on the highest SR3 frequency. If Radio Configuration 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.
- 19
- 20          3X\_SCH\_INFO\_INCL - 3X SCH information included indicator.
- 21          If SCH\_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

1                   If the 3X Supplemental Channel information is included, the  
 2                   base station shall set this field to '1'; otherwise, the base  
 3                   station shall set this field to '0'.

4                   The base station shall include NUM\_SCH occurrences of the following seven fields record if  
 5                   3X\_SCH\_INFO\_INCL is included and set to '1'.

6                   FOR\_SCH\_ID    - Forward Supplemental Channel identifier.

7                   The base station shall set this field the identifier of the  
 8                   Forward Supplemental Channel pertaining to this record.

9                   3X\_SCH\_LOW\_INCL - SCH code channel on the lowest SR3 frequency included  
 10                  indicator.

11                  If the SCH on the lowest SR3 frequencies has a different code  
 12                  channel than the SCH on the center SR3 frequency, the base  
 13                  station shall set this field to '1'; otherwise, the base station  
 14                  shall set this field to '0'.

15                  QOF\_MASK\_ID-

16                  \_SCH\_LOW    - QOF index for the SCH on the lowest SR3 frequency.

17                  If 3X\_SCH\_LOW\_INCL is set to '0', the base station shall omit  
 18                  this field; otherwise, the base station shall set this field as  
 19                  follows:

20                  The base station shall set this field to the index of the Quasi-  
 21                  orthogonal function (see Table 3.1.3.1.12-2 of [2])  
 22                  corresponding to the QOF index for the SCH on the lowest  
 23                  SR3 frequency.

24                  CODE\_CHAN-

25                  \_SCH\_LOW    - Code channel for the SCH on the lowest SR3 frequency.

26                  If 3X\_SCH\_LOW\_INCL is set to '0', the base station shall omit  
 27                  this field; otherwise, the base station shall set this field as  
 28                  follows:

29                  The base station shall set this field to the code channel index  
 30                  (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is  
 31                  to use on the SCH on the lowest SR3 frequency. If Radio  
 32                  Configuration 6 or 8 is used, the base station shall set this  
 33                  field in the range 1 to 127 inclusive. If Radio Configuration 7  
 34                  or 9 is used, the base station shall set this field in the range 1  
 35                  to 255 inclusive.

36                  3X\_SCH\_HIGH\_INCL - SCH code channel on the highest SR3 frequency included  
 37                  indicator.

38                  If the SCH on the highest SR3 frequencies has a different code  
 39                  channel than the SCH on the center SR3 frequency, the base  
 40                  station shall set this field to '1'; otherwise, the base station  
 41                  shall set this field to '0'.

42                  QOF\_MASK\_ID-

43                  \_SCH\_HIGH    - QOF index for the SCH on the highest SR3 frequency.

1           If 3X\_SCH\_HIGH\_INCL is set to ‘0’, the base station shall omit  
2           this field; otherwise, the base station shall set this field as  
3           follows:

4           The base station shall set this field to the index of the Quasi-  
5           orthogonal function (see Table 3.1.3.1.12-2 of [2]  
6           corresponding to the QOF index for the SCH on the highest  
7           SR3 frequency.

8           CODE\_CHAN-

9            \_SCH\_HIGH – Code channel for the SCH on the highest SR3 frequency.

10          If 3X\_SCH\_HIGH\_INCL is set to ‘0’, the base station shall omit  
11          this field; otherwise, the base station shall set this field as  
12          follows:

13          The base station shall set this field to the code channel index  
14          (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is  
15          to use on the SCH on the highest SR3 frequency. If Radio  
16          Configuration 6 or 8 is used, the base station shall set this  
17          field in the range 1 to 127 inclusive. If Radio Configuration 7  
18          or 9 is used, the base station shall set this field in the range 1  
19          to 255 inclusive.

## 1 3.7.3.3.2.37 Extended Supplemental Channel Assignment Message

2 MSG\_TAG: ESCAM

3

| Field                | Length (bits) |
|----------------------|---------------|
| START_TIME_UNIT      | 3             |
| REV_SCH_DTX_DURATION | 4             |
| USE_T_ADD_ABORT      | 1             |
| USE_SCRM_SEQ_NUM     | 1             |
| SCRIM_SEQ_NUM        | 0 or 4        |
| ADD_INFO_INCL        | 1             |
| FPC_PRI_CHAN         | 0 or 1        |

|                  |   |
|------------------|---|
| REV_CFG_INCLUDED | 1 |
|------------------|---|

The base station shall include the following field if REV\_CFG\_INCLUDED is set to '1'

|                  |   |
|------------------|---|
| NUM_REV_CFG_RECS | 5 |
|------------------|---|

The base station shall ~~the~~ include (NUM\_REV\_CFG\_RECS +1) occurrences of the following three fields if REV\_CFG\_INCLUDED is set to '1'

|                      |   |
|----------------------|---|
| REV_SCH_ID           | 1 |
| REV_WALSH_ID         | 1 |
| REV_SCH_NUM_BITS_IDX | 4 |

|             |   |
|-------------|---|
| NUM_REV_SCH | 2 |
|-------------|---|

The base station shall include NUM\_REV\_SCH occurrences of the following fields

|                         |        |
|-------------------------|--------|
| REV_SCH_ID              | 1      |
| REV_SCH_DURATION        | 4      |
| REV_SCH_START_TIME_INCL | 1      |
| REV_SCH_START_TIME      | 0 or 5 |
| REV_SCH_NUM_BITS_IDX    | 4      |

4

(continues on next page)

1

| <b>Field</b>     | <b>Length (bits)</b> |
|------------------|----------------------|
| FOR_CFG_INCLUDED | 1                    |
| FOR_SCH_FER REP  | 0 or 1               |

The base station shall include the following field if FOR\_CFG\_INCLUDED is set to '1'

|                  |   |
|------------------|---|
| NUM_FOR_CFG_RECS | 5 |
|------------------|---|

The base station shall ~~the~~ include (NUM\_FOR\_CFG\_RECS +1) occurrences of the following fields if FOR\_CFG\_INCLUDED is set to '1'

|                      |   |
|----------------------|---|
| FOR_SCH_ID           | 1 |
| SCCL_INDEX           | 4 |
| FOR_SCH_NUM_BITS_IDX | 4 |
| NUM_SUP_SHO          | 3 |

NUM\_SUP\_SHO+1 occurrences of the following fields

|                       |                     |
|-----------------------|---------------------|
| PILOT_PN              | 9                   |
| ADD_PILOT_REC_INCL    | 1                   |
| ACTIVE_PILOT_REC_TYPE | 0 or 3              |
| RECORD_LEN            | 0 or 3              |
| Type-specific fields  | 0 or 8 x RECORD_LEN |
| CODE_CHAN_SCH         | 11                  |
| QOF_MASK_ID_SCH       | 2                   |

|             |   |
|-------------|---|
| NUM_FOR_SCH | 2 |
|-------------|---|

The base station shall include NUM\_FOR\_SCH occurrences of the following fields

|                         |        |
|-------------------------|--------|
| FOR_SCH_ID              | 1      |
| FOR_SCH_DURATION        | 4      |
| FOR_SCH_START_TIME_INCL | 1      |
| FOR_SCH_START_TIME      | 0 or 5 |
| SCCL_INDEX              | 4      |

2

(continues on next page)

1

| <b>Field</b>          | <b>Length (bits)</b> |
|-----------------------|----------------------|
| FPC_INCL              | 1                    |
| FPC_MODE_SCH          | 0 or 3               |
| FPC_SCH_INIT_SETPT_OP | 0 or 1               |
| FPC_SEC_CHAN          | 0 or 1               |
| NUM_SUP               | 0 or 2               |

Include NUM\_SUP occurrences of the following fields:

|                    |   |
|--------------------|---|
| SCH_ID             | 1 |
| FPC_SCH_FER        | 5 |
| FPC_SCH_INIT_SETPT | 8 |
| FPC_SCH_MIN_SETPT  | 8 |
| FPC_SCH_MAX_SETPT  | 8 |

|                      |        |
|----------------------|--------|
| FPC_THRESH_SCH_INCL  | 0 or 1 |
| FPC_SETPT_THRESH_SCH | 0 or 8 |
| RPC_INCL             | 1      |
| RPC_NUM_SUP          | 0 or 1 |

Include RPC\_NUM\_SUP +1 occurrences of the following two fields record:

|                  |   |
|------------------|---|
| SCH_ID           | 1 |
| RLGAIN_SCH_PILOT | 6 |

(continues on next page)

2

3

1

| Field            | Length (bits) |
|------------------|---------------|
| 3X_SCH_INFO_INCL | 1             |
| NUM_3X_CFG       | 0 or 2        |

NUM\_3X\_CFG occurrences of the following record if  
3X\_SCH\_INFO\_INCL is included\_and\_set to '1':

|            |   |
|------------|---|
| FOR_SCH_ID | 1 |
| NUM_3X_REC | 5 |

(NUM\_3X\_REC + 1) occurrences of the following record:

|            |   |
|------------|---|
| SCCL_INDEX | 4 |
|------------|---|

(NUM\_SUP\_SHO + 1) occurrences of the following record for each corresponding SCCL INDEX field:

|                      |         |
|----------------------|---------|
| 3X_SCH_LOW_INCL      | 1       |
| QOF_MASK_ID_SCH_LOW  | 0 or 2  |
| CODE_CHAN_SCH_LOW    | 0 or 11 |
| 3X_SCH_HIGH_INCL     | 1       |
| QOF_MASK_ID_SCH_HIGH | 0 or 2  |
| CODE_CHAN_SCH_HIGH   | 0 or 11 |

- 1
- 2     START\_TIME\_UNIT     - Unit for start time.
- 3
- 4                         The base station shall set this field to indicate the units of
- 5                         start time included in *Extended Supplemental Channel*
- 6                         *Assignment Message*, *Forward Supplemental Channel*
- 7                         *Assignment Mini Message*, *Reverse Supplemental Channel*
- 8                         *Assignment Mini Message*, and *Universal Handoff Direction*
- 9                         *Message*. The base station shall set this field to one less than
- 10                        the number of 20 ms frames that determines the
- 11                        START\_TIME\_UNIT.
- 12     REV\_SCH\_DTX-
- 13         \_DURATION     - Discontinuous Transmission on Reverse Supplemental
- 14                         Channel.
- 15                         The base station shall set this field to the maximum duration
- 16                         of time in units of 20 ms that the mobile station is allowed to
- 17                         stop transmission on a Reverse Supplemental Channel within
- 18                         the reverse assignment duration. The base station shall set
- 19                         this field to '0000' if the mobile station is to stop using a
- 20                         Reverse Supplemental Channel once it has stopped
- 21                         transmitting on that Reverse Supplemental Channel. The base
- 22                         shall set this field to '1111' if the mobile station is allowed to
- 23                         resume transmission on a Reverse Supplemental Channel at
- 24                         any time within the reverse assignment duration.
- 25     USE\_T\_ADD\_ABORT     - Reverse use T\_ADD abort indicator.
- 26                         The base station shall set this field to '1' to indicate that the
- 27                         mobile station is to utilize the T\_ADD Reverse Supplemental
- 28                         Channel abort feature for this reverse assignment; otherwise,
- 29                         the base station shall set this field to '0'.
- 30     USE\_SCRM-
- 31         \_SEQ\_NUM     - Use Supplemental Channel Request Message sequence
- 32                         number indicator.
- 33                         The base station shall set this field to '1' if the
- 34                         SCRM\_SEQ\_NUM field is included in this message; otherwise,
- 35                         the base station shall set this field to '0'.
- 36     SCRM\_SEQ\_NUM     - Supplemental Channel Request Message sequence number.
- 37                         If USE\_SCRM\_SEQ\_NUM is set to '1', the base station shall set
- 38                         this field to the sequence number corresponding to the
- 39                         SCRM\_SEQ\_NUM field in a Supplemental Channel Request
- 40                         Message to which the mobile station is to match this message;
- 41                         otherwise, the base station shall omit this field.
- 42     ADD\_INFO\_INCL     - Additional information included indicator.
- 43                         If the message is to contain the FPC\_PRI\_CHAN field, the
- 44                         base station shall set this field to '1'; otherwise, the base
- station shall set this field to '0'.

1                   The base station shall set this field to '0' if any of the following  
 2                   conditions holds:

- 3                   - The message does not contain any Supplemental Channel  
                   assignment.
- 4                   - The mobile station is currently in the [Control\\_Hold\\_Active](#)  
                   mode.

5                   FPC\_PRI\_CHAN - Power Control Subchannel Indicator.

6  
 7  
 8                   If the ADD\_INFO\_INCL field is set to '0', the base station shall  
 9                   omit this field; otherwise, the base station shall set this field  
 10                  as follows:

11                  The base station shall set this field to '0' if the mobile station  
 12                  is to perform the primary inner loop estimation on the  
 13                  received Forward Fundamental Channel and the base station  
 14                  is to multiplex the Power Control Subchannel on the Forward  
 15                  Fundamental Channel. The base station shall set this field to  
 16                  '1' if the mobile station is to perform the primary inner loop  
 17                  estimation on the received Forward Dedicated Control  
 18                  Channel and the base station is to multiplex the Power  
 19                  Control Subchannel on the Forward Dedicated Control  
 20                  Channel.

21                  REV\_CFG\_INCLUDED - Reverse Supplemental Channel configuration included.

22  
 23                  The base station shall set this field to '1' if this message  
 24                  contains a Reverse Supplemental Channel configuration.  
                  Otherwise, the base station shall set this field to '0'.

25                  NUM\_REV\_CFG\_RECS - Number of the Reverse Supplemental Channel configuration  
 26                  Records.

27  
 28                  If REV\_CFG\_INCLUDED is set to '1', ~~The base station shall~~  
 29                  set this field to one less than the number of reverse  
 30                  supplemental channel configuration records consisting of the  
 31                  following three fields that are included in this message:  
[otherwise, the base station shall omit this field.](#)

32                  The base station shall include NUM\_REV\_CFG\_RECS+1 occurrences of the following three  
 33                  fields only if the REV\_CFG\_INCLUDED field is set to '1'.

34                  REV\_SCH\_ID - Reverse Supplemental Channel Identifier.

35  
 36                  The base station shall set this field to the identifier of the  
                  Reverse Supplemental Channel.

37                  REV\_WALSH\_ID - Reverse Supplemental Channel Walsh cover Identifier.

38                  The base station shall set this field according to Table  
 39                  3.7.3.3.2.37-1 to indicate the Walsh cover ID that the mobile  
 40                  station is to use when transmitting number of bits per frame  
 41                  specified by REV\_NUM\_BITS\_IDX on the Reverse  
 42                  Supplemental Channel specified by REV\_SCH\_ID. If only one  
 43                  reverse supplemental channel is assigned, the base station  
 44                  should set this field to the default value for the  
 45                  REV\_WALSH\_ID as specified in 2.6.4.2.

**Table 3.7.3.3.2.37-1. REV\_WALSH\_ID Field**

| REV_WALSH_ID<br>(binary) | Walsh Cover  |              |
|--------------------------|--------------|--------------|
|                          | SCH_ID = '0' | SCH_ID = '1' |
| 0                        | + -          | + + -        |
| 1                        | + + -        | + + + - + +  |

2

- 3                   REV\_SCH-
- 4                \_NUM\_BITS\_IDX    - Reverse Supplemental Channel number of bits per frame
- 5                index.
- 6                If USE\_FLEX\_NUM\_BITS is equal to '0' or if
- 7                USE\_FLEX\_NUM\_BITS is equal to '1' and
- 8                RSCH\_NBIT\_TABLE\_ID[REV\_SCH\_ID] is equal to '0000', then
- 9                the base station shall set this field according to Table
- 10              3.7.3.3.2.37-2 to indicate the Reverse Supplemental Channel
- 11              number of information bits per frame and the number of CRC
- 12              bits per frame, corresponding to REV\_WALSH\_ID field.
- 13              If     USE\_FLEX\_NUM\_BITS    is     equal     to     '1'     and
- 14              RSCH\_NBIT\_TABLE\_ID[REV\_SCH\_ID] is not equal to '0000',
- 15              then the base station shall set the REV\_SCH\_NUM\_BITS\_IDX
- 16              this field to indicate the Reverse Supplemental Channel
- 17              number of information bits per frame, corresponding to
- 18              REV\_WALSH\_ID                  field                  to              be
- 19              NUM\_BITS[RSCH\_NBIT\_TABLE\_ID[REV\_SCH\_ID]]
- 20              [REV\_SCH\_NUM\_BITS\_IDX]and the Reverse Supplemental
- 21              Channel number of CRC bits per frame, corresponding to
- 22              REV WALSH ID                  field                  to              be
- 23              CRC LEN IDX[RSCH\_NBIT\_TABLE\_ID[REV\_SCH\_ID]]
- 24              [REV SCH NUM BITS IDX].

25

26

**Table 3.7.3.3.2.37-2. R-SCH Number of Information Bits per Frame**

| REV_SCH_NUM_<br>BITS_IDX<br>(binary) | Number of information bits<br>per frame |         | Number of<br>CRC bits<br>per frame |
|--------------------------------------|-----------------------------------------|---------|------------------------------------|
|                                      | RC 3, 5                                 | RC 4, 6 |                                    |
| 0000                                 | 172                                     | 267     | 12                                 |
| 0001                                 | 360                                     | 552     | 16                                 |
| 0010                                 | 744                                     | 1,128   | 16                                 |
| 0011                                 | 1,512                                   | 2,280   | 16                                 |
| 0100                                 | 3,048                                   | 4,584   | 16                                 |

|          | <b>Number of information bits per frame</b> |        |    |
|----------|---------------------------------------------|--------|----|
| 0101     | 6,120                                       | 5,178  | 16 |
| 0110     | 12,264                                      | 9,192  | 16 |
| 0111     | Reserved                                    | 10,356 | 16 |
| 1000     | Reserved                                    | 20,712 | 16 |
| RESERVED | All other values are reserved               |        |    |

1  
2       NUM\_REV\_SCH   - Number of Reverse Supplemental Channels assigned.

3                                  The base station shall set this field to the number of Reverse  
4                                  Supplemental Channel assigned. The base station shall set  
5                                  this field to '00' if the assignment of Supplemental Channel is  
6                                  not included.

7       The base station shall include NUM\_REV\_SCH occurrences of the following five fields  
8                                  (REV\_SCH\_ID, REV\_SCH\_DURATION, REV\_SCH\_START\_TIME\_INCL,  
9                                  REV\_SCH\_START\_TIME, and REV\_SCH\_NUM\_BITS\_IDX).

10      REV\_SCH\_ID   - Reverse Supplemental Channel Identifier.

11                                  The base station shall set this field to the identifier of the  
12                                  Reverse Supplemental Channel.

13      REV\_SCH\_DURATION   - Duration of Reverse Supplemental Channel assignment

14                                  The base station shall set this field to '0000' to indicate that  
15                                  the mobile station is to stop transmitting on the Reverse  
16                                  Supplemental Channel specified by REV\_SCH\_ID at the  
17                                  explicit start time specified by REV\_SCH\_START\_TIME or at  
18                                  the implicit start time if REV\_SCH\_START\_TIME\_INCL is set  
19                                  to '0'. The base station shall set this field to '1111' to indicate  
20                                  that the mobile station may transmit on the Reverse  
21                                  Supplemental Channel specified by REV\_SCH\_ID, starting at  
22                                  the explicit start time specified by REV\_SCH\_START\_TIME in  
23                                  this message, until the start time specified by a subsequent  
24                                  Reverse Supplemental Channel assignment corresponding to  
25                                  the same Supplemental Channel (see 2.6.6.2.5.1.1). The base  
26                                  station shall set this field to the duration according to Table  
27                                  3.7.3.3.2.37-3, starting at the start time specified by  
28                                  REV\_SCH\_START\_TIME, during which the mobile station may  
29                                  transmit on the Reverse Supplemental Channel specified by  
30                                  REV\_SCH\_ID.

31                                  **Table 3.7.3.3.2.37-3. FOR\_SCH\_DURATION and  
32                                  REV\_SCH\_DURATION Fields**

| <b>FOR_SCH_DURATION<br/>REV_SCH_DURITION<br/>(binary)</b> | <b>Duration in 20 ms</b> |
|-----------------------------------------------------------|--------------------------|
|                                                           |                          |

|      |          |
|------|----------|
| 0001 | 1        |
| 0010 | 2        |
| 0011 | 3        |
| 0100 | 4        |
| 0101 | 5        |
| 0110 | 6        |
| 0111 | 7        |
| 1000 | 8        |
| 1001 | 16       |
| 1010 | 32       |
| 1011 | 64       |
| 1100 | 96       |
| 1101 | 128      |
| 1110 | 256      |
| 1111 | Infinity |

1           REV\_SCH-

2    \_Start\_Time\_Incl    - Start time included indicator.

3           If REV\_SCH\_DURATION is not equal to '0000', the base  
4           station shall set this field to '1'. If REV\_SCH\_DURATION is  
5           equal to '0000', the base station shall set this field as follows:6           The base station shall set this field to '1' if  
7           REV\_SCH\_START\_TIME is included in this message;  
8           otherwise, the base station shall set this field to '0'.

9           REV\_SCH-

10   \_Start\_Time    - Start time for Reverse Supplemental Channel assignment.

11           If REV\_SCH\_START\_TIME\_INCL is set to '0', the base station  
12           shall omit this field; otherwise, the base station shall set this  
13           field to the System Time, in units of time specified by  
14           START\_TIME\_UNIT, (modulo 32) at which the mobile station  
15           may start transmitting on the Reverse Supplemental Channel  
16           specified in this message. The explicit start time for  
17           transmitting on the Reverse Supplemental Channel is the time  
18           for which19            $(\lfloor t / (\text{START\_TIME\_UNIT}_s + 1) \rfloor - \text{REV\_SCH\_START\_TIME}) \bmod 32 = 0,$ 

21           where t is the System Time in units of 20 ms.

22    REV\_SCH-

1        \_NUM\_BITS\_IDX    - Reverse Supplemental Channel number of bits per frame  
 2                         index.

3                         If USE\_FLEX\_NUM\_BITS is equal to '0' or if  
 4                         USE\_FLEX\_NUM\_BITS is equal to '1' and  
 5                         RSCH\_NBIT\_TABLE\_ID[REV\_SCH\_ID] is equal to '0000', then  
 6                         the base station shall set this field according to Table  
 7                         3.7.3.3.2.37-2 to indicate the Reverse Supplemental Channel  
 8                         number of information bits per frame and the number of CRC  
 9                         bits per frame, corresponding to REV\_WALSH\_ID field.

10                  If USE\_FLEX\_NUM\_BITS is equal to '1' and  
 11                  RSCH\_NBIT\_TABLE\_ID[REV\_SCH\_ID] is not equal to '0000', then the base station shall set the REV\_SCH\_NUM\_BITS\_IDX  
 12                  this field to indicate the Reverse Supplemental Channel  
 13                  number of information bits per frame, corresponding to  
 14                  REV\_WALSH\_ID field to be  
 15                  NUM\_BITS[RSCH\_NBIT\_TABLE\_ID[REV\_SCH\_ID]]  
 16                  [REV\_SCH\_NUM\_BITS\_IDX] and the Reverse Supplemental  
 17                  Channel number of CRC bits per frame, corresponding to  
 18                  REV WALSH ID field to be  
 19                  CRC LEN IDX|RSCH NBIT TABLE ID[REV SCH ID]  
 20                  [REV SCH NUM BITS IDX].

22  
 23        FOR\_CFG\_INCLUDED    - Forward Supplemental Channel configuration included.  
 24                  The base station shall set this field to '1' if this message  
 25                  contains a Forward Supplemental Channel configuration.  
 26                  Otherwise, the base station shall set this field to '0'.

27        FOR\_SCH\_FER REP    - Forward Supplemental Channel FER report indicator.  
 28                  If FOR\_CFG\_INCLUDED is set to '0', the base station shall  
 29                  omit this field, otherwise, the base station shall include this  
 30                  field and set it as follows:

31                  The base station shall set this field to '1' if the mobile station  
 32                  is to report the Supplemental Channel frame counts (see  
 33                  2.6.4.1.1); otherwise, the base station shall set this field to '0'.

34        NUM\_FOR\_CFG\_RECS    - Number of the Forward Supplemental Channel configuration  
 35                  Records.

36                  If REVFOR CFG INCLUDED is set to '1', the base station  
 37                  shall set this field to one less than the number of forward  
 38                  supplemental channel configuration records consisting of the  
 39                  following three fields that are included in this message:  
otherwise, the base station shall omit this field.

41        The base station shall include NUM\_FOR\_CFG\_RECS+1 occurrences of the following fields  
 42                  only if the FOR\_CFG\_INCLUDED field is set to '1'.

43        FOR\_SCH\_ID    - Forward Supplemental Channel identifier  
 44                  The base station shall set this field to the identifier of the  
 45                  Forward Supplemental Channel.

- 1 SCCL\_INDEX - Supplemental Channel Code list index.  
 2 The base station shall set this field to the index of the record  
 3 in the Supplemental Channel Code list.
- 4 FOR\_SCH-  
 5 \_NUM\_BITS\_IDX - Forward Supplemental Channel number of information bits  
 6 index.  
 7 If USE\_FLEX\_NUM\_BITS is equal to '0' or if  
 8 USE\_FLEX\_NUM\_BITS is equal to '1' and  
 9 FSCH\_NBIT\_TABLE\_ID for FOR\_SCH\_ID is equal to '0000',  
 10 then the base station shall set this field according to Table  
 11 3.7.3.3.2.37-4 to indicate the number of information bits per  
 12 frame and the length of the CRC field for the Forward  
 13 Supplemental Channel identified by FOR\_SCH\_ID  
 14 corresponding to SCCL\_INDEX.

15

16

17

**Table 3.7.3.3.2.37-4. F-SCH Number of Information Bits per Frame**

| <b>FOR_SCH_NUM_BITS_IDX<br/>(binary)</b> | <b>Number of information bits per frame</b> |                   | <b>Number of CRC bits per frame</b> |
|------------------------------------------|---------------------------------------------|-------------------|-------------------------------------|
|                                          | <b>RC 3, 4, 6, 7</b>                        | <b>RC 5, 8, 9</b> |                                     |
| 0000                                     | 172                                         | 267               | 12                                  |
| 0001                                     | 360                                         | 552               | 16                                  |
| 0010                                     | 744                                         | 1,128             | 16                                  |
| 0011                                     | 1,512                                       | 2,280             | 16                                  |
| 0100                                     | 3,048                                       | 4,584             | 16                                  |
| 0101                                     | 6,120                                       | 5,178             | 16                                  |
| 0110                                     | 12,264                                      | 9,192             | 16                                  |
| 0111                                     | Reserved                                    | 10,356            | 16                                  |
| 1000                                     | Reserved                                    | 20,712            | 16                                  |
| RESERVED                                 | All other values are reserved               |                   |                                     |

18

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27

If USE\_FLEX\_NUM\_BITS<sub>s</sub> is equal to '1' and FSCH\_NBIT\_TABLE\_ID[FOR\_SCH\_ID] is not equal to '0000', then the base station shall set the FOR\_SCH\_NUM\_BITS\_IDX this field to indicate that the number of information bits per frame for the Forward Supplemental channel identified by FOR\_SCH\_ID to be NUM\_BITS[FSCH\_NBIT\_TABLE\_ID[FOR\_SCH\_ID]][FOR\_SCH\_NUM\_BITS\_IDX] that the number of CRC bits per frame for the Forward Supplemental channel identified by FOR SCH ID to be

1                   CRC\_LEN\_IDX|FSCH\_NBIT\_TABLE\_ID|FOR\_SCH\_ID||FOR\_SC  
 2                   H\_NUM\_BITS\_IDX].

3                   The FOR\_SCH\_NUM\_BITS\_IDX field also specifies the number  
 4                   of CRC bits per frame for the Forward Supplemental Channel  
 5                   identified by FOR\_SCH\_ID. The number of CRC bits per frame  
 6                   is specified by  
 7                   CRC\_LEN\_IDX|FSCH\_NBIT\_TABLE\_ID|FOR\_SCH\_ID||FOR\_SC  
 8                   H\_NUM\_BITS\_IDX] and Table 3.7.5.20-4.

- 
- 10                  NUM\_SUP\_SHO    -   Number of Forward Supplemental Channels in Soft Handoff  
 11                                   The base station shall set this field to the size of the Forward  
 12                                   Supplemental Channel Active Set minus one.  
 13                  The base station shall include NUM\_SUP\_SHO+1 occurrences of the following fields for each  
 14                  Forward Supplemental channel corresponding to the FOR\_SCH\_ID and the SCCL\_INDEX  
 15                  whose frames may be soft-combined by the mobile station:  
 16  
 17                  PILOT\_PN      -   Pilot PN sequence offset index.  
 18                                   The base station shall set this field to the pilot PN sequence  
 19                                   offset for this pilot in units of 64 PN chips.  
 20                  ADD\_PILOT\_REC\_INCL    -   Additional pilot information included indicator.  
 21                                   The base station shall set this field to '1' if additional pilot  
 22                                   information listed in PILOT\_REC\_TYPE and RECORD\_LEN  
 23                                   fields are included. The base station shall set this field to '0' if  
 24                                   the corresponding pilot is the common pilot and there is no  
 25                                   additional pilot information included.  
 26                  PILOT\_REC\_TYPE    -   Pilot record type  
 27                                   If ADD\_PILOT\_REC\_INCL is set to '1', the base station shall  
 28                                   set this field to the PILOT\_REC\_TYPE value shown in Table  
 29                                   3.7.2.3.2.21-6 corresponding to the type of Pilot Record  
 30                                   specified by this record.  
 31                                   If ADD\_PILOT\_REC\_INCL is set to '0', the base station shall  
 32                                   omit this field.  
 33                  RECORD\_LEN      -   Pilot record length.  
 34                                   If ADD\_PILOT\_REC\_INCL is set to '1', the base station shall  
 35                                   set this field to the number of octets in the type-specific fields  
 36                                   of this pilot record.  
 37                                   If ADD\_PILOT\_REC\_INCL is set to '0', the base station shall  
 38                                   omit this field.  
 39                  Type-specific fields    -   Pilot record type-specific fields.  
 40                                   If ADD\_PILOT\_REC\_INCL is set to '1', the base station shall  
 41                                   include type-specific fields based on the  
 42                                   ACTIVE\_PILOT\_REC\_TYPE of this pilot record as described in  
 43                                   3.7.6.1.

- 1                   If ADD\_PILOT\_REC\_INCL is set to '0', the base station shall  
2                   omit this field.
- 3     CODE\_CHAN\_SCH - Code channel on the Supplemental Channel.  
4                   The base station shall set this field to the code channel index  
5                   (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is  
6                   to use on the Supplemental Channel of the Forward Traffic  
7                   Channel indexed by SCCL\_INDEX.
- 8     QOF\_MASK\_ID\_SCH - Quasi-orthogonal function index on the Supplemental  
9                   Channel.  
10                  The base station shall set this field to the index of the Quasi-  
11                  orthogonal function (see 3.1.3.1.13 of [2]).
- 12
- 13     NUM\_FOR\_SCH - Number of Forward Supplemental Channels assigned.  
14                  The base station shall set this field to the number of forward  
15                  Supplemental Channel assigned. The base station shall set  
16                  this field to '00' if the assignment of Supplemental Channel is  
17                  not included.
- 18     The base station shall include NUM\_FOR\_SCH occurrences of the following five fields  
19                  (FOR\_SCH\_ID, FOR\_SCH\_DURATION, FOR\_SCH\_START\_TIME\_INCL,  
20                  FOR\_SCH\_START\_TIME, and SCCL\_INDEX).
- 21
- 22     FOR\_SCH\_ID - Forward Supplemental Channel identifier.  
23                  The base station shall set this field to the identifier of the  
24                  Forward Supplemental Channel pertaining to this record.
- 25     FOR\_SCH\_DURATION - Duration of Forward Supplemental Channel assignment.  
26                  The base station shall set this field to the duration (see Table  
27                  3.7.3.3.2.37-3), starting at the start time of the message  
28                  specified by FOR\_SCH\_START\_TIME, during which the mobile  
29                  station is to process the Forward Supplemental Channel.
- 30                  The base station shall set this field to '0000' to indicate that  
31                  the mobile station should stop processing the Forward Supplemental  
32                  Channel starting at the explicit start time of the message specified by  
33                  FOR\_SCH\_START\_TIME or at the  
34                  implicit start time if FOR\_SCH\_START\_TIME\_INCL is set to '0'.
- 35                  The base station shall set this field to '1111' to indicate that  
36                  the mobile station should process the Forward Supplemental  
37                  Channel, starting at the start time of the message specified by  
38                  FOR\_SCH\_START\_TIME, until the start time specified by a  
39                  subsequent Forward Supplemental Channel assignment  
40                  corresponding to the same Supplemental Channel (see  
41                  2.6.6.2.5.1.1).

1 FOR\_SCH-

- 2 \_START\_TIME\_INCL - Start time included indicator.

3 If FOR\_SCH\_DURATION is not equal to '0000', the base  
 4 station shall set this field to '1'. If FOR\_SCH\_DURATION is  
 5 equal to '0000', the base station shall set this field as follows:  
 6 The base station shall set this field to '1' if  
 7 FOR\_SCH\_START\_TIME is included in this message;  
 8 otherwise, the base station shall set this field to '0'.

9 FOR\_SCH-

- 10 \_START\_TIME - Start time for Forward Supplemental Channel assignment.

11 If FOR\_SCH\_START\_TIME\_INCL is set to '0', the base station  
 12 shall omit this field; otherwise, the base station shall set this  
 13 field to the System Time, in units of time specified by  
 14 START\_TIME\_UNIT, (modulo 32) at which the mobile station is  
 15 to start processing the Forward Supplemental Channel  
 16 specified in this message. The start time for processing  
 17 Forward Supplemental Channels is the time for which

$$( \lfloor t / (\text{START\_TIME\_UNIT} + 1) \rfloor - \text{FOR\_SCH\_START\_TIME} ) \bmod 32 = 0,$$

20 where  $t$  is the System Time in units of 20 ms.

21 SCCL\_INDEX

- 22 - Supplemental Channel Code list index.

23 The base station shall set this field to the index of the record  
 24 in the Forward Supplemental Channel Code list corresponding  
 25 to the FOR\_SCH\_ID. The base station shall include an  
 26 SCCL\_INDEX whose SCH Active Set is a subset of the Active  
 27 Set of the Fundamental Channel, Dedicated Control Channel,  
 or both.

28 FPC\_INCL

- 29 - Forward Link Power Control parameter included indicator.

30 If the forward power control related information is included in  
 31 this message, the base station shall set this field to '1';  
 otherwise, the base station shall set this field to '0'.

32 FPC\_MODE\_SCH

- 33 - Forward Power Control operational mode indicator used  
 during forward Supplemental Channel assignment interval.

34 If FPC\_INCL is set to '1', the base station shall set the value to  
 35 the forward power control operation mode (see [2]); otherwise,  
 36 the base station shall omit this field.

37 FPC\_SCH-

38 \_INIT\_SETPT\_OP

- 39 - Initial Supplemental Channel Outer Loop Eb/Nt setpoint  
 option.

40 If FPC\_INCL is set to '0', the base station shall omit this field;  
 41 otherwise, the base station shall set this field as follows:

The base station shall set this field to '0' to indicate that FPC\_SCH\_INIT\_SETPT contains the absolute value of the initial F-SCH Eb/Nt setpoint. The base station shall set this field to '1' to indicate that FPC\_SCH\_INIT\_SETPT contains the offset value of the initial F-SCH Eb/Nt setpoint relative to the current value used in the mobile station for the channel carrying the Forward Power Control Subchannel.

- |              |                                                                                                                                                                                                                                                                                                                      |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FPC_SEC_CHAN | <ul style="list-style-type: none"> <li>- Master Supplemental channel index.</li> </ul> <p>If FPC_INCL is set to ‘1’ and FPC_MODE_SCH is set to ‘001’, ‘010’, ‘101’, or ‘110’, the base station shall set this field to the master Supplemental Channel index; otherwise, the base station shall omit this field.</p> |
| NUM_SUP      | <ul style="list-style-type: none"> <li>- Number of Supplemental Channels.</li> </ul> <p>If FPC_INCL is set to ‘0’ the base station shall omit this field; otherwise, the base station shall set this field to the total number of the Supplemental Channels.</p>                                                     |

The base station shall include NUM\_SUP occurrences of the following record:

- |    |                     |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----|---------------------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 18 | SCH_ID              | - | Supplemental channel index.<br>The base station shall set this field to the Supplemental Channel index.                                                                                                                                                                                                                                                                                                                                                                                             |
| 19 |                     |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 20 |                     |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 21 | FPC_SCH_FER         | - | Supplemental channel target Frame Error Rate.<br>The base station shall set this field to the target Frame Error Rate on the Supplemental Channel, as specified in Table 3.7.3.3.2.25-2.                                                                                                                                                                                                                                                                                                            |
| 22 |                     |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 23 |                     |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 24 |                     |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 25 | FPC_SCH_INIT_SETPT  | - | Initial Supplemental Channel Output Loop Eb/Nt setpoint<br>The base station shall set this field to initial Supplemental Channel Outer Loop Eb/Nt setpoint (absolute value or offset value as indicated by FPC_SCH_INIT_SETPT_OP) as follows: <ul style="list-style-type: none"><li>• If FPC_SCH_INIT_SETPT_OP is set to '0', the unit is 0.125 dB;</li><li>• If FPC_SCH_INIT_SETPT_OP is set to '1', the unit is 0.125 dB and the offset is expressed as two's complement signed number.</li></ul> |
| 26 |                     |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 27 |                     |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 28 |                     |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 29 |                     |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 30 |                     |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 31 |                     |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 32 |                     |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 33 |                     |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 34 | FPC_SCH_MIN_SETPT   | - | Minimum Supplemental Channel outer loop Eb/Nt setpoint.<br>The base station shall set this field to minimum Supplemental Channel Outer Loop Eb/Nt setpoint, in units of 0.125 dB.                                                                                                                                                                                                                                                                                                                   |
| 35 |                     |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 36 |                     |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 37 | FPC_SCH_MAX_SETPT   | - | Maximum Supplemental Channel outer loop Eb/Nt setpoint.<br>The base station shall set this field to maximum Supplemental Channel Outer Loop Eb/Nt setpoint, in units of 0.125 dB.                                                                                                                                                                                                                                                                                                                   |
| 38 |                     |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 39 |                     |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 40 | FPC_THRESH_SCH_INCL | - | SCH Setpoint Report Threshold Included Indicator.<br>If FPC_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:                                                                                                                                                                                                                                                                                                                |
| 41 |                     |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 42 |                     |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

If SCH setpoint report threshold is included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

## FPC\_SETPT-

## \_THRESH\_SCH

- SCH Setpoint Report Threshold.

If FPC\_THRESH\_SCH\_INCL is set to ‘1’, the base station shall set [this field the value to the value of SETPT\\_THRESH\\_SCH](#) [the Supplemental Channel setpoint threshold](#) (in units of 0.125 dB) above which the outer loop report message will be sent by the mobile station; otherwise, the base station shall omit this field.

## RPC\_INCL

- Reverse Power Control parameter included indicator.

The base station shall set this field to ‘1’ if RPC\_NUM\_SUP is included in this message; otherwise the base station shall set this field to ‘0’.

## RPC\_NUM\_SUP

- Number of Supplemental Channels.

If RPC\_INCL is set to ‘1’, the base station shall set this field to the total number of the Supplemental Channels minus one; otherwise, the base station shall omit this field.

The base station shall include RPC\_NUM\_SUP +1 occurrences of the following two fields record:

## SCH\_ID

- Supplemental channel index.

The base station shall set this field to the Supplemental Channel index.

## RLGAIN\_SCH\_PILOT

- Supplemental channel power offset adjustment relative to Reverse Pilot Channel power for radio configurations greater than 2.

The base station shall set this field to the correction factor to be used by mobile stations setting the power of a supplemental channel, expressed as a two’s complement value in units of 0.125 dB.

## 3X\_SCH\_INFO\_INCL

- 3X SCH information included indicator.

If the 3X Supplemental Channel information is included, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

[If FOR CFG INCLUDED is set to ‘0’, the base station shall set this field to ‘0’.](#)

## NUM\_3X\_CFG

- Number of 3X Supplemental Channels to be configured

If 3X\_SCH\_INFO\_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the number of 3X Forward Supplemental Channels to be configured. The base station shall set this field to ‘00’ if the configuration of Supplemental Channel is not included.

1 The base station shall include NUM\_3X\_CFG occurrences of the following record if  
 2 3X\_SCH\_INFO\_INCL is included and set to '1'.

3           FOR\_SCH\_ID    - Forward Supplemental Channel identifier.  
 4                         The base station shall set this field the identifier of the  
 5                         Forward Supplemental Channel pertaining to this record.  
 6           NUM\_3X\_REC    - Number of 3X records  
 7                         The base station shall set this field to the number of instances  
 8                         of the following record minus one included in this message.

9           The base station shall include NUM\_3X\_REC+1 occurrences of the following variable-length  
 10          record.

11  
 12           SCCL\_INDEX    - Supplemental Channel Code list index.  
 13                         The base station shall set this field to the index of the record  
 14                         in the Supplemental Channel Code list.

15 The base station shall include NUM\_SUP\_SHO+1 occurrences of the following fields for each  
 16 Forward Supplemental channel corresponding to the FOR\_SCH\_ID and the SCCL\_INDEX  
 17 whose frames may be soft-combined by the mobile station:

18           3X\_SCH\_LOW\_INCL    - SCH code channel on the lowest SR3 frequency included  
 19                         indicator.  
 20                         If the SCH on the lowest SR3 frequencies has a different code  
 21                         channel than the SCH on the center SR3 frequency, the base  
 22                         station shall set this field to '1'; otherwise, the base station  
 23                         shall set this field to '0'.

24           QOF\_MASK\_ID-  
 25                \_SCH\_LOW    - QOF index for the SCH on the lowest SR3 frequency.  
 26                         If 3X\_SCH\_LOW\_INCL is set to '0', the base station shall omit  
 27                         this field; otherwise, the base station shall set this field as  
 28                         follows:  
 29                         The base station shall set this field to the index of the Quasi-  
 30                         orthogonal function (see Table 3.1.3.1.12-2 of [2])  
 31                         corresponding to the QOF index for the SCH on the lowest  
 32                         SR3 frequency.

33           CODE\_CHAN-  
 34                \_SCH\_LOW    - Code channel for the SCH on the lowest SR3 frequency.  
 35                         If 3X\_SCH\_LOW\_INCL is set to '0', the base station shall omit  
 36                         this field; otherwise, the base station shall set this field as  
 37                         follows:  
 38                         The base station shall set this field to the code channel index  
 39                         (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is  
 40                         to use on the SCH on the lowest SR3 frequency. If Radio  
 41                         Configuration 6 or 8 is used, the base station shall set this  
 42                         field in the range 1 to 127 inclusive. If Radio Configuration 7  
 43                         or 9 is used, the base station shall set this field in the range 1  
 44                         to 255 inclusive.

1       3X\_SCH\_HIGH\_INCL   - SCH code channel on the highest SR3 frequency included  
2                            indicator.

3                            If the SCH on the highest SR3 frequencies has a different code  
4                            channel than the SCH on the center SR3 frequency, the base  
5                            station shall set this field to '1'; otherwise, the base station  
6                            shall set this field to '0'.

7       QOF\_MASK\_ID-

8            \_SCH\_HIGH   - QOF index for the SCH on the highest SR3 frequency.

9                            If 3X\_SCH\_HIGH\_INCL is set to '0', the base station shall omit  
10                          this field; otherwise, the base station shall set this field as  
11                          follows:

12                          The base station shall set this field to the index of the Quasi-  
13                          orthogonal function (see Table 3.1.3.1.12-2 of [2])  
14                          corresponding to the QOF index for the SCH on the highest  
15                          SR3 frequency.

16       CODE\_CHAN-

17            \_SCH\_HIGH   - Code channel for the SCH on the highest SR3 frequency.

18                          If 3X\_SCH\_HIGH\_INCL is set to '0', the base station shall omit  
19                          this field; otherwise, the base station shall set this field as  
20                          follows:

21                          The base station shall set this field to the code channel index  
22                          (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is  
23                          to use on the SCH on the highest SR3 frequency. If Radio  
24                          Configuration 6 or 8 is used, the base station shall set this  
25                          field in the range 1 to 127 inclusive. If Radio Configuration 7  
26                          or 9 is used, the base station shall set this field in the range 1  
27                          to 255 inclusive.

1    3.7.3.3.2.38 Forward Supplemental Channel Assignment Mini Message

2    MSG\_TAG: FSCAMM

3

| <b>Field</b>       | <b>Length (bits)</b> |
|--------------------|----------------------|
| FOR_SCH_ID         | 1                    |
| FOR_SCH_DURATION   | 4                    |
| FOR_SCH_START_TIME | 5                    |
| SCCL_INDEX         | 4                    |

- 1 |
- 2       FOR\_SCH\_ID   - Forward Supplemental Channel identifier.  
 3                     The base station shall set this field to the identifier of the  
 4                     Forward Supplemental Channel.
- 5       FOR\_SCH\_DURATION   - Duration of Forward Supplemental Channel assignment.  
 6                     The base station shall set this field to the duration (see Table  
 7                     3.7.3.3.2.37-3), starting at the start time of the message  
 8                     specified by FOR\_SCH\_START\_TIME, during which the mobile  
 9                     station is to process the Forward Supplemental Channel.
- 10                   The base station shall set this field to '0000' to indicate that  
 11                   the mobile station should stop processing the Forward  
 12                   Supplemental Channel starting at the start time of the  
 13                   message specified by FOR\_SCH\_START\_TIME.
- 14                   The base station shall set this field to '1111' to indicate that  
 15                   the mobile station should process the Forward Supplemental  
 16                   Channel, starting at the explicit start time of the message  
 17                   specified by FOR\_SCH\_START\_TIME, until the start time of a  
 18                   subsequent Forward Supplemental Channel assignment  
 19                   corresponding to the same Forward Supplemental Channel  
 20                   (see 2.6.6.2.5.1.1).
- 21       FOR\_SCH-  
 22            \_START\_TIME   - Start time for Forward Supplemental Channel assignment.  
 23                     The base station shall set this field to the System Time, in  
 24                     units of time specified by START\_TIME\_UNIT, (modulo 32) at  
 25                     which the mobile station is to start processing the Forward  
 26                     Supplemental Channel specified in this message. The start  
 27                     time for processing Forward Supplemental Channels is the  
 28                     time for which  

$$\lfloor t / (\text{START\_TIME\_UNIT} + 1) \rfloor - \text{FOR\_SCH\_START\_TIME} \bmod 32 = 0,$$
 29                     where  $t$  is the System Time in units of 20 ms.
- 30       SCCL\_INDEX   - Supplemental Channel Code list index.  
 31                     The base station shall set this field to the index of the record  
 32                     in the Forward Supplemental Channel Code list corresponding  
 33                     to the FOR\_SCH\_ID. The base station shall include an  
 34                     SCCL\_INDEX whose SCH Active Set is a subset of the Active  
 35                     Set of the Fundamental Channel, Dedicated Control Channel,  
 36                     or both.

## 1 3.7.3.3.2.39 Reverse Supplemental Channel Assignment Mini Message

2 MSG\_TAG: RSCAMM

3

| <b>Field</b>         | <b>Length (bits)</b> |
|----------------------|----------------------|
| REV_SCH_ID           | 1                    |
| REV_SCH_DURATION     | 4                    |
| REV_SCH_START_TIME   | 5                    |
| REV_SCH_NUM_BITS_IDX | 4                    |

- 1
- 2       REV\_SCH\_ID     - Reverse Supplemental Channel identifier.  
 3                     The base station shall set this field to the identifier of the  
 4                     Reverse Supplemental Channel.
- 5       REV\_SCH\_DURATION     - Duration of Reverse Supplemental Channel assignment.  
 6                     The base station shall set this field to '0000' to indicate that  
 7                     the mobile station is to stop transmitting on the Reverse  
 8                     Supplemental Channel specified by REV\_SCH\_ID at the start  
 9                     time specified by START\_TIME. The base station shall set this  
 10                    field to '1111' to indicate that the mobile station may transmit  
 11                    on the Reverse Supplemental Channel specified by  
 12                    REV\_SCH\_ID, starting at the start time specified by  
 13                    REV\_SCH\_START\_TIME in this message, until the start time  
 14                    specified by a subsequent Reverse Supplemental Channel  
 15                    assignment corresponding to the same Supplemental Channel  
 16                    (see 2.6.6.2.5.1.1). The base station shall set this field to the  
 17                    duration according to Table 3.7.3.3.2.37-3, starting at the  
 18                    explicit start time specified by REV\_SCH\_START\_TIME, during  
 19                    which the mobile station may transmit on the Reverse  
 20                    Supplemental Channel specified by REV\_SCH\_ID.

- 21       REV\_SCH-  
 22        \_Start\_Time     - Start time for *Reverse Supplemental Channel Assignment Mini*  
 23                    *Message*.  
 24                     The base station shall set this field to the System Time, in  
 25                    units of time specified by START\_TIME\_UNIT, (modulo 32) at  
 26                    which the mobile station may start transmitting on the  
 27                    Reverse Supplemental Channel specified in this message. The  
 28                    explicit start time for transmitting on the Reverse  
 29                    Supplemental Channel is the time for which  
 30                     $(\lfloor t / (\text{START\_TIME\_UNIT} + 1) \rfloor - \text{REV\_SCH\_START\_TIME}) \bmod 32 = 0$ ,  
 31                    where t is the System Time in units of 20 ms.

- 32
- 33       REV\_SCH-  
 34        \_NUM\_BITS\_IDX     - Reverse Supplemental Channel number of information bits per  
 35                    frame index.  
 36                     If USE\_FLEX\_NUM\_BITS is equal to '0' or if  
 37                     USE\_FLEX\_NUM\_BITS is equal to '1' and  
 38                     RSCH\_NBIT\_TABLE\_ID[REV\_SCH\_ID] is equal to '0000', then  
 39                     the base station shall set this field according to Table  
 40                     3.7.3.3.2.37-2 to indicate the Reverse Supplemental Channel  
 41                     number of information bits per frame and the number of CRC  
 42                     bits per frame, that the mobile station may transmit on the  
 43                     reverse Supplemental Channel identified by REV\_SCH\_ID.

44       If     USE\_FLEX\_NUM\_BITS<sub>s</sub>     is     equal     to     '1'     and

1 RSCH\_NBIT\_TABLE\_ID[REV\_SCH\_ID] is not equal to '0000',  
2 then the base station shall set the REV\_SCH\_NUM\_BITS\_IDX  
3 field to indicate the Reverse Supplemental Channel number of  
4 information bits per frame that the mobile station may  
5 transmit on the Reverse Supplemental Channel identified by  
6 REV\_SCH\_ID to be  
7 NUM\_BITS[RSCH\_NBIT\_TABLE\_ID[REV\_SCH\_ID]]  
8 [REV\_SCH\_NUM\_BITS\_IDX] and the Reverse Supplemental  
9 Channel number of CRC bits per frame that the mobile station  
10 may transmit on the Reverse Supplemental Channel identified  
11 by REV SCH ID to be  
12 CRC\_LEN\_IDX[RSCH\_NBIT\_TABLE\_ID[REV\_SCH\_ID]]  
13 [REV SCH NUM BITS IDX].  
14 The REV\_SCH\_NUM\_BITS\_IDX field also specifies the number  
15 of CRC bits per frame for the Reverse Supplemental Channel  
16 identified by REV\_SCH\_ID. The number of CRC bits per frame  
17 is specified by  
18 CRC\_LEN\_IDX[RSCH\_NBIT\_TABLE\_ID[REV\_SCH\_ID]][REV\_SCH\_NUM\_BITS\_IDX] and Table 3.7.5.20-4.  
19

## 1 3.7.3.3.2.40 Mobile Assisted Burst Operation Parameters Message

2 MSG\_TAG: MABOPM

3

| <b>Field</b> | <b>Length (bits)</b> |
|--------------|----------------------|
| ORDER_FLAG   | 1                    |

If ORDER\_FLAG is set to '1', the base station shall include following record:

|                |   |
|----------------|---|
| PS_MIN_DELTA   | 3 |
| ORDER_INTERVAL | 3 |

|               |   |
|---------------|---|
| PERIODIC_FLAG | 1 |
|---------------|---|

If PERIODIC\_FLAG is set to '1', the base station shall include following record:

|                   |   |
|-------------------|---|
| NUM_PILOTS        | 3 |
| PERIODIC_INTERVAL | 6 |

|                |   |
|----------------|---|
| THRESHOLD_FLAG | 1 |
|----------------|---|

If THRESHOLD\_FLAG is set to '1', the base station shall include following record:

|                    |   |
|--------------------|---|
| PS_FLOOR_HIGH      | 6 |
| PS_FLOOR_LOW       | 6 |
| PS_CEILING_HIGH    | 6 |
| PS_CEILING_LOW     | 6 |
| THRESHOLD_INTERVAL | 6 |

- 1
- 2           **ORDER\_FLAG**     - Order change reporting flag.
- 3                         The base station shall set this field to '1' to indicate that the  
 4                         mobile station is to send a *Pilot Strength Measurement Mini*  
 5                         *Message* to the base station whenever a received pilot strength  
 6                         measurement changes its relative order with respect to all  
 7                         other reported pilot strength measurements during  
 8                         supplemental channel burst operations; otherwise, the base  
 9                         station shall set this field to '0'.
- 10          If ORDER\_FLAG is set to '1', the base stations shall include the following two-field record:
- 11            **PS\_MIN\_DELTA**     - Minimum power strength delta.
- 12                         The base station shall set this field to one less than the  
 13                         minimum pilot strength measurement difference between two  
 14                         pilots (in units of 0.5 dB) that must be measured in order for  
 15                         the mobile station to send a *Pilot Strength Measurement Mini*  
 16                         *Messages* when the rank order mode is enabled. A difference  
 17                         in pilot strength of at least (PS\_MIN\_DELTA + 1), in units of  
 18                         0.5 dB, must be measured for ORDER\_INTERVAL successive  
 19                         20 ms intervals before a rank order based *Pilot Strength*  
 20                         *Measurement Mini Message* is generated.
- 21            **ORDER\_INTERVAL**     - Order interval.
- 22                         The base station shall set this field to the minimum interval (in  
 23                         20 ms units) during which the indicated pilot strength  
 24                         measurement difference greater than or equal to  
 25                         (PS\_MIN\_DELTA + 1), in units of 0.5 dB, must be measured by |  
 26                         the mobile station in order for the mobile station to send a  
 27                         *Pilot Strength Measurement Mini Messages* when the rank order  
 28                         mode is enabled.
- 29            **PERIODIC\_FLAG**     - Periodic report flag.
- 30                         The base station shall set this field to '1' to indicate that the  
 31                         mobile station is to send *Pilot Strength Measurement Mini*  
 32                         *Messages* periodically during supplemental channel burst  
 33                         operations; otherwise the base station shall set this field to '0'.
- 34          If PERIODIC\_FLAG is set to '1', the base station shall include the following two-field record:
- 35            **NUM\_PILOTS**      - Number of pilots.
- 36                         The base station shall set this field to the number of pilots for  
 37                         which the mobile station is to send *Pilot Strength Measurement Mini*  
 38                         *Messages* when the periodic mode is enabled.
- 39            **PERIODIC\_INTERVAL**     - Periodic interval.
- 40                         The base station shall set this field to the interval (in 20 ms  
 41                         units) between *Pilot Strength Measurement Mini Messages* when  
 42                         the periodic mode is enabled.
- 43            **THRESHOLD\_FLAG**     - Threshold reporting flag.

1           The base station shall set this field to ‘1’ to indicate that the  
 2           mobile station is to send *Pilot Strength Measurement Mini*  
 3           *Messages* whenever a measured pilot crosses below a lower  
 4           bound or exceeds an upper bound during Supplemental  
 5           channel burst operations; otherwise the base station shall set  
 6           this field to ‘0’.

7       If THRESHOLD\_FLAG is set to ‘1’, the base station shall include the following five-field  
 8       record:

9       PS\_FLOOR\_HIGH    - Lower bound reporting high water mark.

10      The base station shall set this field to the high water mark for  
 11      the lower bound below which the mobile station is to send *Pilot*  
 12      *Strength Measurement Mini Messages* when the threshold mode  
 13      is enabled.

14      The base station shall set this field as an unsigned binary  
 15      number equal to  $\lfloor -2 \times 10 \times \log_{10} E_c/I_o \rfloor$ .

16      PS\_FLOOR\_LOW     - Lower bound reporting low water mark.

17      The base station shall set this field to the low water mark for  
 18      the lower bound below which the mobile station is to send *Pilot*  
 19      *Strength Measurement Mini Messages* when the threshold mode  
 20      is enabled.

21      The base station shall set this field as an unsigned binary  
 22      number equal to  $\lfloor -2 \times 10 \times \log_{10} E_c/I_o \rfloor$ .

23      PS\_CEILING\_HIGH   - Upper bound reporting high water mark.

24      The base station shall set this field to the high water mark for  
 25      the upper bound above which the mobile station is to send  
 26      *Pilot Strength Measurement Mini Messages* when the threshold  
 27      mode is enabled.

28      The base station shall set this field as an unsigned binary  
 29      number equal to  $\lfloor -2 \times 10 \times \log_{10} E_c/I_o \rfloor$ .

30      PS\_CEILING\_LOW    - Upper bound reporting low water mark.

31      The base station shall set this field to the low water mark for  
 32      the upper bound above which the mobile station is to send  
 33      *Pilot Strength Measurement Mini Messages* when the threshold  
 34      mode is enabled.

35      The base station shall set this field as an unsigned binary  
 36      number equal to  $\lfloor -2 \times 10 \times \log_{10} E_c/I_o \rfloor$ .

37      THRESHOLD-

38      \_INTERVAL        - Threshold reporting interval.

39      The base station shall set this field to the interval (in 20 ms  
 40      units) between *Pilot Strength Measurement Mini Messages* when  
 41      the threshold reporting mode is enabled.

## 1    3.7.3.3.2.41 User Zone Reject Message

2    MSG\_TAG: UZRM

| <b>Field</b>       | <b>Length (bits)</b> |
|--------------------|----------------------|
| REJECT_UZID        | 16                   |
| REJECT_ACTION_INDI | 3                    |
| UZID_ASSIGN_INCL   | 1                    |
| ASSIGN_UZID        | 0 or 16              |

- 3    REJECT\_UZID    -    Rejected User Zone identifier.  
   4                         The base station shall set this field to the User Zone identifier  
   5                         of the User Zone rejected by the base station.
- 6    REJECT\_ACTION\_INDI    -    Rejection action indicator.  
   7                         The base station shall set this field to the value shown in  
   8                         Table [3.7.2.3.2.29-1](#) [3.7.5.19-1](#) corresponding to the User  
   9                         Zone rejection action field to identify the mobile station action.
- 10    UZID\_ASSIGN\_INCL    -    User Zone identifier assignment included indicator.  
   11                         If assigned UZID information is included, the base station  
   12                         shall set this field to '1'; otherwise, the base station shall set  
   13                         this field to '0'.
- 14    ASSIGN\_UZID    -    Assigned User Zone identifiers.  
   15                         The base station shall set this field to the User Zone identifier  
   16                         of the User Zone assigned to the mobile station.

## 1    3.7.3.3.2.42 User Zone Update Message

2    MSG\_TAG: UZUM

3

| Specific Field | Length (bits) |
|----------------|---------------|
| UZID           | 16            |

4    UZID    -    User Zone identifier.

5    The base station shall set this field to the User Zone identifier  
6    supported by the base station.

## 1    3.7.3.3.2.43 Call Assignment Message

2    MSG\_TAG: CLAM

3

| <b>Field</b>        | <b>Length (bits)</b> |
|---------------------|----------------------|
| RESPONSE_IND        | 1                    |
| TAG                 | 0 or 4               |
| ACCEPT_IND          | 0 or 1               |
| REJECT_PKTDATA_IND  | 0 or 1               |
| BYPASS_ALERT_ANSWER | 0 or 1               |
| SO_INCL             | 1                    |
| SO                  | 0 or 16              |
| CON_REF_INCL        | 1                    |
| CON_REF             | 0 or 8               |

4

5    RESPONSE\_IND    -    Response indicator.

6                     The base station shall set this field to '1' if this message is a  
7                     response to an *Enhanced Origination Message* from the mobile  
8                     station; otherwise, the base station shall set this field to '0'.

9    TAG    -    Transaction identifier.

10                   If the RESPONSE\_IND field is set to '0', the base station shall  
11                   omit this field; otherwise, the base station shall include this  
12                   field and set it as follows:13                   The base station shall set this field to the value of the TAG  
14                   field of the *Enhanced Origination Message* to which this  
15                   message is the response.

16    ACCEPT\_IND    -    Accepted indicator.

17                   If the RESPONSE\_IND field is set to '0', the base station shall  
18                   omit this field; otherwise, the base station shall include this  
19                   field and shall set it as follows:

1                   If the base station accepts the call request from the mobile  
 2                   station, the base station shall set this field to '1'; otherwise,  
 3                   the base station shall set this field to '0'.

4    REJECT\_PKTDATA\_IND – Packet data service option rejection indicator.

5                   If the ACCEPT\_IND field is not included or is included and is  
 6                   set to '1', the base station shall omit this field; otherwise, the  
 7                   base station shall include this field and shall set it as follows:

8                   The base station shall set this field to '1' to indicate rejection  
 9                   of the packet data service option requested by the mobile  
 10                  station; otherwise, the base station shall set this field to '0'.

11                  BYPASS\_ALERT-

12                  ANSWER – Bypass alert indicator.

13                  If the RESPONSE\_IND field is set to '1', the base station shall  
 14                  omit this field; otherwise, the base station shall include this  
 15                  field and shall set it as follows:

16                  If the mobile station is to bypass the *Waiting for Order*  
 17                  *Substate* and the *Waiting for Mobile Station Answer Substate*  
 18                  for this call, the base station shall set this field to '1';  
 19                  otherwise, the base station shall set this field to '0'.

20                  SO\_INCL – Service option included indicator.

21                  The base station shall set this field to '1' if the service option  
 22                  field is included in this message; otherwise, if the base station  
 23                  shall set this field to '0'.

24                  SO – Service option.

25                  If the SO\_INCL field is set to '0', the base station shall omit  
 26                  this field; otherwise, the base station shall include this field  
 27                  and shall set it to the value of the service option number (as  
 28                  specified in [30]) that the base station proposes for this call.

29                  CON\_REF\_INCL – Connection reference included indicator.

30                  If the ACCEPT\_IND field is not included or is included but is  
 31                  set to '1', the base station shall set this field to '1'; otherwise,  
 32                  the base station shall set this field to '0'.

33                  CON\_REF – Connection reference.

1       If the CON\_REF\_INCL field is set to '0', the base station shall  
2       omit this field; otherwise, the base station shall include this  
3       field and shall set it to the value of the connection reference  
4       that was/will be assigned to the service option connection  
5       corresponding to this call.

## 1    3.7.3.3.2.44 Extended Alert With Information Message

2    MSG\_TAG: EAWIM

3

| <b>Field</b> | <b>Length (bits)</b> |
|--------------|----------------------|
| CON_REF_INCL | 1                    |
| CON_REF      | 0 or 8               |
| NUM_REC      | 4                    |

NUM\_REC occurrences of the following three-field record:

|                      |                               |
|----------------------|-------------------------------|
| RECORD_TYPE          | 8                             |
| RECORD_LEN           | 8                             |
| Type-specific fields | $8 \times \text{RECORD\_LEN}$ |

4

5    CON\_REF\_INCL – Connection reference included indicator.

6                          The base station shall set this field to ‘1’ if the connection  
7                          reference field is included in this message; otherwise, it shall  
8                          set this field to ‘0’.

9    CON\_REF – Connection reference.

10                         If the CON\_REF\_INCL field is set to ‘0’, the base station shall  
11                         omit this field; otherwise, the base station shall include this  
12                         field and shall set it to the value of the connection reference  
13                         assigned to the service option connection of the call, to which  
14                         this message corresponds.

15    NUM\_REC – Number of records.

16                         The base station shall set this field to the number of  
17                         information records included with this message.18    The base station shall include NUM\_REC occurrences of the following three-field record as  
19                         specified in 3.7.5.

20    RECORD\_TYPE – Information record type.

21                         The base station shall set this field as specified in 3.7.5.

- 1            RECORD\_LEN    -    Information record length.
- 2                            The base station shall set this field to the number of octets in  
3                            the type-specific fields included in this record.
- 4    Type-specific fields    -    Type-specific fields.  
5                            The base station shall include type-specific fields as specified  
6                            in 3.7.5.

## 1    3.7.3.3.2.45 Extended Flash With Information Message

2    MSG\_TAG: EFWIM

3

| <b>Field</b> | <b>Length (bits)</b> |
|--------------|----------------------|
| CON_REF_INCL | 1                    |
| CON_REF      | 0 or 8               |
| NUM_REC      | 4                    |

NUM\_REC occurrences of the following three-field record:

|                      |                               |
|----------------------|-------------------------------|
| RECORD_TYPE          | 8                             |
| RECORD_LEN           | 8                             |
| Type-specific fields | $8 \times \text{RECORD\_LEN}$ |

4

5    CON\_REF\_INCL – Connection reference included indicator.

6                          The base station shall set this field to ‘1’ if the connection  
7                          reference field is included in this message; otherwise, it shall  
8                          set this field to ‘0’.

9    CON\_REF – Connection reference.

10                         If the CON\_REF\_INCL field is set to ‘0’, the base station shall  
11                         omit this field; otherwise, the base station shall include this  
12                         field and shall set it to the value of the connection reference  
13                         assigned to the service option connection of the call, to which  
14                         this message corresponds.

15    NUM\_REC – Number of records.

16                         The base station shall set this field to the number of  
17                         information records included with this message.18    The base station shall include NUM\_REC occurrences of the following three-field record as  
19                         specified in 3.7.5.

20    RECORD\_TYPE – Information record type.

21                         The base station shall set this field as specified in 3.7.5.

- 1            RECORD\_LEN    -    Information record length.
- 2                            The base station shall set this field to the number of octets in  
3                            the type-specific fields included in this record.
- 4        Type-specific fields    -    Type-specific fields.  
5                            The base station shall include type-specific fields as specified  
6                            in 3.7.5.

## 1    3.7.3.3.2.46 Security Mode Command Message

## 2    MSG\_TAG: SMCM

| Field                     | Length (bits) |
|---------------------------|---------------|
| USE_TIME                  | 1             |
| ACTION_TIME               | 0 or 6        |
| <u>D_SIG_ENCRYPT_MODE</u> | 3             |
| NUM_RECS                  | 3             |

NUM\_RECS occurrences of the following two-field record

|                 |   |
|-----------------|---|
| CON_REF         | 8 |
| UI_ENCRYPT_MODE | 3 |

|                                |               |
|--------------------------------|---------------|
| <u>USE_NEW_KEY</u>             | <u>0-or-1</u> |
| <u>ENC_KEY_SIZE</u>            | 0 or 3        |
| <u>KEY_SEQ</u>                 | <u>0-or-4</u> |
| <u>C SIG ENCRYPT MODE INCL</u> | <u>1</u>      |
| <u>C SIG ENCRYPT MODE</u>      | <u>0 or 3</u> |

3

4    USE\_TIME - Use action time indicator.

5    This field indicates whether an ACTION\_TIME is specified in  
6    this message.7    If an ACTION\_TIME is specified in this message, the base  
8    station shall set this field to '1'; otherwise, the base station  
9    shall set this field to '0'.

10    ACTION\_TIME - Action time.

11    If the USE\_TIME field is set to '1', the base station shall set  
12    this field to the System Time, in units of 80 ms (modulo 64),  
13    at which the message is to take effect. If the USE\_TIME field  
14    is set to '0' the base station shall omit this field.15    D\_SIG\_ENCRYPT\_MODE - Dedicated channel Common Channel-encryption mode indicator.16    The base station shall set it to signaling message-encryption  
17    mode, as shown in Table 3.7.4.5-1.

18    NUM\_REC - Number of user information encryption records.

19    The base station shall set this field to the number of user  
20    information encryption records included in this message.

21    The base station shall include NUM\_REC occurrences of the following two-field record

22    CON\_REF - Connection reference corresponding to the service option  
23    connection requesting for encryption.

|    |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | If this field is included, the base station shall set this field to the connection reference of the service option connection corresponding to this user information encryption.                                                                                                                                                                                                                                                    |
| 2  |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 3  |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 4  | UI_ENCRYPT_MODE - Encryption mode indicator for user information privacy.                                                                                                                                                                                                                                                                                                                                                           |
| 5  | The base station shall set this field to user information encryption mode for the service option connection identified by CON_REF as shown in Table 3.7.5.7-3.                                                                                                                                                                                                                                                                      |
| 6  |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 7  |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 8  | <u>USE_NEW_KEY</u> Use new encryption key indication.                                                                                                                                                                                                                                                                                                                                                                               |
| 9  | <del>If both of UI_ENCRYPT_MODE and SIG_ENCRYPT_MODE are equal to '000' or any reserved value, the base station shall omit this field; otherwise, the base station shall include this field. If included, the base station shall set this field to '0' to indicate that the stored encryption key is to be used by the mobile station and to '1' to indicate that the new encryption key is to be used by the mobile station.</del> |
| 10 |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 11 |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 12 |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 13 |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 14 |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 15 |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 16 | <u>ENC_KEY_SIZE</u> - Key Size used for user information and signaling encryption                                                                                                                                                                                                                                                                                                                                                   |
| 17 | <del>If D SIG ENCRYPT MODE is equal to '001' if USE_NEW_KEY is included and is set to '0', the base station shall omit this field; otherwise, the base station shall include this field and set this field to the encryption key size for user information encryption and signaling encryption according to as shown in Table 3.7.4.5-2; otherwise, the base station shall omit this field.</del>                                   |
| 18 |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 19 |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 20 |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 21 |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 22 |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 23 |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 24 | <u>KEY_SEQ</u> Encryption key sequence number.                                                                                                                                                                                                                                                                                                                                                                                      |
| 25 | <del>If USE NEW KEY is not included, or if USE_NEW_KEY is included and is set to '0', the base station shall include this field; otherwise, the base station shall omit this field. If this field is included, the base station shall set it to the encryption key sequence number to be used by the mobile station.</del>                                                                                                          |
| 26 |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 27 |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 28 |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 29 |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 30 | <u>C SIG ENCRYPT</u>                                                                                                                                                                                                                                                                                                                                                                                                                |
| 31 | <u>MODE INCL</u> - Common channel signaling encryption mode included indicator.                                                                                                                                                                                                                                                                                                                                                     |
| 32 | <del>If C SIG ENCRYPT MODE is included in this message, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.</del>                                                                                                                                                                                                                                                                |
| 33 |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 34 |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 35 |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 36 | <u>C SIG ENCRYPT</u>                                                                                                                                                                                                                                                                                                                                                                                                                |
| 37 | <u>MODE</u> - Common channel signaling encryption mode indicator.                                                                                                                                                                                                                                                                                                                                                                   |
| 38 | <del>If C SIG ENCRYPT MODE INCL is set to '1', the base station shall include this field and shall set it to the common channel signaling encryption mode, as shown in Table 3.7.4.5-1; otherwise, the base station shall omit this field.</del>                                                                                                                                                                                    |
| 39 |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 40 |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 41 |                                                                                                                                                                                                                                                                                                                                                                                                                                     |

1      [3.7.3.3.2.47 Base Station Status Response Message](#)

2      [MSG TAG: BSSRSPM](#)

| <u>Field</u>                          | <u>Length (bits)</u>              |
|---------------------------------------|-----------------------------------|
| <a href="#">QUAL INFO TYPE</a>        | <a href="#">8</a>                 |
| <a href="#">QUAL INFO LEN</a>         | <a href="#">3</a>                 |
| <a href="#">Type-specific fields.</a> | <a href="#">8 × QUAL INFO LEN</a> |
| <a href="#">NUM RECORDS</a>           | <a href="#">4</a>                 |

[NUM RECORD occurrences of the following variable length record:](#)

|                                             |                                   |
|---------------------------------------------|-----------------------------------|
| <a href="#">RECORD TYPE</a>                 | <a href="#">8</a>                 |
| <a href="#">RECORD LENGTH</a>               | <a href="#">8</a>                 |
| <a href="#">Record type specific fields</a> | <a href="#">variable</a>          |
| <a href="#">RESERVED</a>                    | <a href="#">0-7 (as required)</a> |

3      [QUAL INFO TYPE](#) - Qualification information type.

4      The base station shall set this field to the QUAL INFO TYPE  
 5      field in the corresponding *Base Station Status Request*  
 6      *Message*.

7      [QUAL INFO LEN](#) - Qualification information length.

8      The base station shall set this field to the QUAL INFO LEN  
 9      field in the corresponding *Base Station Status Request*  
 10     *Message*.

11     [Type-specific fields](#) - Type-specific fields.

12     The base station shall set these fields to the qualification  
 13     information in the corresponding *Base Station Status Request*  
 14     *Message*.

15     [NUM RECORD](#) - Number of records included in this message.

16     The base station shall set this field to the number of  
 17     occurrences of RECORD TYPE field in this message.

18     The base station shall include one occurrence of the following variable-length record for  
 19     each information record that is included:

20     [RECORD TYPE](#) - Information record type.

21     The base station shall set this field to the record type value  
 22     shown in Table 3.7.3.3.47-1 corresponding to the  
 23     information record included.

1           **Table 3.7.3.3.3.47-1. Base Station Status Response Information Record**  
 2           **Types**

| <u>Information Record Requested</u> | <u>Record Type</u>                  |
|-------------------------------------|-------------------------------------|
| <u>Pilot Information</u>            | <u>00000000</u>                     |
| <u>Reserved</u>                     | <u>00000001-</u><br><u>11111111</u> |

3           RECORD LENGTH - Information record length.  
 4           The base station shall set this field to the length, in octets, of  
 5           the record type specific fields included in this record.

6           Record type specific  
 7           fields - Record type specific fields  
 8           The base station shall set this field to the type specific fields  
 9           corresponding to this record type.

10          If the RECORD TYPE field is set to '00000000', the base  
 11         station shall set the record type specific field as follows:

| <u>Field</u>       | <u>Length (bits)</u> |
|--------------------|----------------------|
| <u>NUM_PILOTS</u>  | <u>4</u>             |
| <u>SID_NID_IND</u> | <u>1</u>             |

NUM\_PILOTS occurrences of the  
 following variable-length record

|                     |                          |
|---------------------|--------------------------|
| <u>RECORD_LEN</u>   | <u>4</u>                 |
| <u>PILOT_PN</u>     | <u>9</u>                 |
| <u>BASE_ID</u>      | <u>16</u>                |
| <u>SID_NID_INCL</u> | <u>0 or 1</u>            |
| <u>SID</u>          | <u>0 or 15</u>           |
| <u>NID</u>          | <u>0 or 16</u>           |
| <u>RESERVED_1</u>   | <u>0-7 (as required)</u> |

13  
 14          NUM\_PILOTS - Number of Pilots reported.

1           The base station shall set this field to the number of pilots  
2           whose information is reported in this message.

3           The base station shall set this field to a number equal or  
4           greater than one.

5       SID NID IND - SID, NID included indicator.

6           The base station shall set this field to '1' if SID, NID  
7           information is included in this message; otherwise, it shall set  
8           this field to '0'.

9           The base station shall include NUM PILOTS occurrences of the following variable  
10          length record:

11       RECORD LEN - Record Length

12           The base station shall set this field to the length in octets of  
13          this record.

14       PILOT PN - Pilot PN sequence offset index.

15           The base station shall set this field to the pilot PN sequence  
16          offset for this base station, in units of 64 PN chips.

17       BASE ID - Base station identification.

18           The base station shall set this field to the Base Station  
19          identification number corresponding to this pilot.

20       SID NID INCL - SID, NID included indicator.

21           If the SID NID IND field is set to '0', the base station shall  
22          omit this field; otherwise, the base station shall include this  
23          field and set it as follows:

24           If this is the first pilot included in this message, the base  
25          station shall set this field to '1'; otherwise, the base station  
26          shall set this field as follows:

27           If the SID and NID of this pilot are same as the SID and NID  
28          of the previous pilot, the base station shall set this field to '0';  
29          otherwise, the base station shall set this field to '1'.

30       SID - System identification.

1           If the SID\_NID\_INCL field is not included or is included and is  
2           set to '0', the base station shall omit this field; otherwise, the  
3           base station shall include this field and set it as follows:

4           The base station shall set this field to the system identification  
5           number of the system corresponding to this pilot (see  
6           2.6.5.2).

7           NID - Network identification.

8           If the SID\_NID\_INCL field is not included or is included and is  
9           set to '0', the base station shall omit this field; otherwise, the  
10          base station shall include this field and set it as follows:

11          The base station shall set this field to the network  
12          identification number of the network corresponding to this  
13          pilot (see 2.6.5.2).

14          RESERVED 1 - Reserved bits.

15          The base station shall add reserved bits as needed in order to  
16          make the length of the pilot specific record equal to an integer  
17          number of octets. The base station shall set these bits to '0'.

19          RESERVED - Reserved bits.

20          The base station shall add reserved bits as needed in order to  
21          make the length of the record equal to an integer number of  
22          octets. The base station shall set these bits to '0'.

23

24

1    3.7.4 Orders

2    *Order Messages* are sent by the base station on the f-csch and the f-dsch. The general PDU  
3    format used on the f-csch is defined in 3.7.2.3.2.7, and the general PDU format used on the  
4    f-dsch is defined in 3.7.3.3.2.1. There are many specific types of *Order Messages*, as shown  
5    in Table 3.7.4-1.

6    The base station may send on the f-csch any type of order shown in Table 3.7.4-1 with a 'Y'  
7    in the first column, but shall not send on the f-csch any type of order with an 'N' in the first  
8    column. The base station may send on the f-dsch any type of order shown in Table 3.7.4-1  
9    with a 'Y' in the second column, but shall not send on the f-dsch any type of order with an  
10   N' in the second column.

11   An order consists of a 6-bit order code and zero or more order-specific fields. The base  
12   station shall set the ORDER field in the *Order Message* to the order code shown in Table  
13   3.7.4-1 corresponding to the type of order being sent.

14   If the order qualification code in the fourth column of Table 3.7.4-1 is '00000000' and there  
15   are no other additional fields as shown by an 'N' in the sixth column, the base station shall  
16   include no order qualification code or other order-specific fields in the *Order Message*. The  
17   order qualification code of such a message is implicitly '00000000'.

18   If the order qualification code is not '00000000' and there are no other additional fields as  
19   shown in Table 3.7.4-1 by an 'N' in the sixth column, the base station shall include the  
20   order qualification code as the only order specific field in the *Order Message*.

21   If there are other additional fields as shown in Table 3.7.4-1 by a 'Y' in the sixth column,  
22   the base station shall include order-specific fields as specified in the corresponding  
23   subsection of this section.

**Table 3.7.4-1. Order and Order Qualification Codes Used on the f-csch and the f-dsch  
(Part 1 of 4)**

| <b>f-csch<br/>Order</b> | <b>f-dsch<br/>Order</b> | <b>Order<br/>Code,<br/>ORDER<br/>(binary)</b> | <b>Order Qual-<br/>ification<br/>Code,<br/>ORDQ<br/>(binary)</b> | <b>ACTION_<br/>TIME<br/>can be<br/>specified</b> | <b>Addi-<br/>tional<br/>Fields<br/>other than<br/>ORDQ</b> | <b>Name/Function</b>                                                                |
|-------------------------|-------------------------|-----------------------------------------------|------------------------------------------------------------------|--------------------------------------------------|------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Y                       | N                       | 000001                                        | 00000000                                                         | N                                                | N                                                          | <i>Abbreviated Alert Order</i>                                                      |
| Y                       | Y                       | 000010                                        | 00000000                                                         | N                                                | Y                                                          | <i>Base Station Challenge Confirmation Order (see 3.7.4.1)</i>                      |
| N                       | Y                       | 000011                                        | 000000nn                                                         | Y                                                | N                                                          | <i>Message Encryption Mode Order</i> (where nn is the mode per Table 3.7.2.3.2.8-2) |
| Y                       | N                       | 000100                                        | 00000000                                                         | N                                                | N                                                          | <i>Reorder Order</i>                                                                |
| N                       | Y                       | 000101                                        | 0000nnnn                                                         | N                                                | N                                                          | <i>Parameter Update Order</i> (where 'nnnn' is the Request Number)                  |
| Y                       | Y                       | 000110                                        | 00000000                                                         | N                                                | N                                                          | <i>Audit Order</i>                                                                  |
| Y                       | N                       | 001001                                        | 00000000                                                         | N                                                | N                                                          | <i>Intercept Order</i>                                                              |
| N                       | Y                       | 001010                                        | 00000000                                                         | N                                                | N                                                          | <i>Maintenance Order</i>                                                            |
| Y                       | Y                       | 010000                                        | 00000000                                                         | N                                                | N                                                          | <i>Base Station Acknowledgment Order</i> (see [4])                                  |
| N                       | Y                       | 010001                                        | 00000000                                                         | N                                                | N                                                          | <i>Pilot Measurement Request Order</i>                                              |
| N                       | Y                       | 010001                                        | Nnnnnnnn<br>(in the range of 00000001 to 11111111)               | N                                                | Y                                                          | <i>Periodic Pilot Measurement Request Order</i> (see 3.7.4.6)                       |
| Y                       | Y                       | 010010                                        | 0001nnnn                                                         | N                                                | N                                                          | <i>Lock Until Power-Cycled Order</i> (where nnnn is the lock reason)                |
| Y                       | Y                       | 010010                                        | 0010nnnn                                                         | N                                                | N                                                          | <i>Maintenance Required Order</i> (where nnnn is the maintenance reason)            |
| Y                       | N                       | 010010                                        | 11111111                                                         | N                                                | N                                                          | <i>Unlock Order</i>                                                                 |

1      **Table 3.7.4-1. Order and Order Qualification Codes Used on the f-csch and the f-dsch**  
 2      **(Part 2 of 4)**

| <b>f-csch<br/>Order</b> | <b>f-dsch<br/>Order</b> | <b>Order<br/>Code,<br/>ORDER<br/>(binary)</b> | <b>Order Qual-<br/>ification<br/>Code,<br/>ORDQ<br/>(binary)</b> | <b>ACTION_<br/>TIME<br/>can be<br/>specified</b> | <b>Addi-<br/>tional<br/>Fields<br/>other than<br/>ORDQ</b> | <b>Name/Function</b>                                                                                         |
|-------------------------|-------------------------|-----------------------------------------------|------------------------------------------------------------------|--------------------------------------------------|------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| N                       | Y                       | 010011                                        | 00000000                                                         | Y                                                | Y                                                          | <i>Service Option Request Order</i> (Band Class 0 only) (see 3.7.4.2)                                        |
| N                       | Y                       | 010100                                        | 00000000                                                         | Y                                                | Y                                                          | <i>Service Option Response Order</i> (Band Class 0 only; see 3.7.4.3)                                        |
| Y                       | Y                       | 010101                                        | 00000000                                                         | N                                                | N                                                          | <i>Release Order</i> (no reason given)                                                                       |
| Y                       | Y                       | 010101                                        | 00000010                                                         | N                                                | N                                                          | <i>Release Order</i> (indicates that requested service option is rejected)                                   |
| N                       | Y                       | 010110                                        | 00000000                                                         | N                                                | N                                                          | <i>Outer Loop Report Request Order</i>                                                                       |
| N                       | Y                       | 010111                                        | 00000000                                                         | Y                                                | N                                                          | <i>Long Code Transition Request Order</i> (request public)                                                   |
| N                       | Y                       | 010111                                        | 00000001                                                         | Y                                                | N                                                          | <i>Long Code Transition Request Order</i> (request private)                                                  |
| N                       | Y                       | 011001                                        | 0000nnnn                                                         | N                                                | N                                                          | <i>Continuous DTMF Tone Order</i> (where the tone is designated by 'nnnn' as defined in Table 2.7.1.3.2.4-4) |
| N                       | Y                       | 011001                                        | 11111111                                                         | N                                                | N                                                          | <i>Continuous DTMF Tone Order</i> (stop continuous DTMF tone)                                                |
| N                       | Y                       | 011010                                        | nnnnnnnn                                                         | N                                                | N                                                          | <i>Status Request Order</i> (see 3.7.4.4)                                                                    |
| Y                       | N                       | 011011                                        | 00000000                                                         | N                                                | N                                                          | <i>Registration Accepted Order</i> (ROAM_INDI not included; see 3.7.4.5)                                     |

**Table 3.7.4-1. Order and Order Qualification Codes Used on the f-csch and the f-dsch  
(Part 3 of 4)**

| <b>f-csch<br/>Order</b> | <b>f-dsch<br/>Order</b> | <b>Order<br/>Code,<br/>ORDER<br/>(binary)</b> | <b>Order Qual-<br/>ification<br/>Code,<br/>ORDQ<br/>(binary)</b> | <b>ACTION_<br/>TIME can<br/>be<br/>specified</b> | <b>Additional<br/>Fields<br/>other than<br/>ORDQ</b> | <b>Name/Function</b>                                                                                                                                                     |
|-------------------------|-------------------------|-----------------------------------------------|------------------------------------------------------------------|--------------------------------------------------|------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Y                       | N                       | 011011                                        | 00000001                                                         | N                                                | N                                                    | <i>Registration Request Order</i>                                                                                                                                        |
| Y                       | N                       | 011011                                        | 00000010                                                         | N                                                | N                                                    | <i>Registration Rejected Order</i>                                                                                                                                       |
| Y                       | N                       | 011011                                        | 00000100                                                         | N                                                | N                                                    | <i>Registration Rejected Order (delete TMSI)</i>                                                                                                                         |
| Y                       | N                       | 011011                                        | 00000101                                                         | N                                                | Y                                                    | <i>Registration Accepted Order (ROAM_INDI included <u>but the signaling encryption related fields are not included</u>; see 3.7.4.5)</i>                                 |
| Y                       | N                       | 011011                                        | 0000011 <u>1</u><br><u>0</u>                                     | N                                                | Y                                                    | <i>Registration Accepted Order (ROAM_INDI, <u>and the signaling encryption related fields EXT_ENC_MSB, SIG_ENCRYPT_MODE, and KEY_SIZE are included</u>; see 3.7.4.5)</i> |
| N                       | Y                       | 011101                                        | nnnnnnnn                                                         | Y                                                | N                                                    | <i>Service Option Control Order (Band Class 0 only) (the specific control is designated by 'nnnnnnnn' as determined by each service option)</i>                          |
| Y                       | Y                       | 011110                                        | nnnnnnnn                                                         | N                                                | N                                                    | <i>Local Control Order (the specific order is designated by 'nnnnnnnn' as determined by each system)</i>                                                                 |

|   |   |        |          |   |   |                                                                               |
|---|---|--------|----------|---|---|-------------------------------------------------------------------------------|
| Y | N | 011111 | 00000000 | N | N | <i>Slotted Mode Order<br/>(transition to the slotted<br/>mode operation.)</i> |
|---|---|--------|----------|---|---|-------------------------------------------------------------------------------|

**Table 3.7.4-1. Order and Order Qualification Codes Used on the f-csch and the f-dsch  
(Part 4 of 4)**

| <b>f-csch<br/>Order</b> | <b>f-dsch<br/>Order</b> | <b>Order<br/>Code,<br/>ORDER<br/>(binary)</b> | <b>Order Qual-<br/>ification<br/>Code,<br/>ORDQ<br/>(binary)</b> | <b>ACTION_<br/>TIME can<br/>be<br/>specified</b> | <b>Additional<br/>Fields<br/>other than<br/>ORDQ</b> | <b>Name/Function</b>                                                                                                                                                      |
|-------------------------|-------------------------|-----------------------------------------------|------------------------------------------------------------------|--------------------------------------------------|------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Y                       | Y                       | 100000                                        | 00000000                                                         | N                                                | Y                                                    | <i>Retry Order</i> (indicates that the requested operation is rejected and retry delay is included, see 3.7.4.7)                                                          |
| Y                       | Y                       | <u>100001</u>                                 | <u>00000000</u>                                                  | Y                                                | N                                                    | <u><i>Base Station Reject Order</i></u> (indicates that the base station can not decrypt an <i>Origination Message</i> from the mobile station)                           |
| Y                       | Y                       | <u>100001</u>                                 | <u>00000001</u>                                                  | Y                                                | N                                                    | <u><i>Base Station Reject Order</i></u> (indicates that the base station can not decrypt any message (other than an <i>Origination Message</i> ) from the mobile station) |

## 1    3.7.4.1 Base Station Challenge Confirmation Order

2    The *Base Station Challenge Confirmation Order* can be sent on either the f-csch or on the f-  
3    dsch.

4

| <b>Order Specific Field</b> | <b>Length (bits)</b> |
|-----------------------------|----------------------|
| ORDQ                        | 8                    |
| AUTHBS                      | 18                   |
| RESERVED                    | 6                    |

5

6            ORDQ    -    Order qualification code.

7                 The base station shall set this field to '00000000'.

8            AUTHBS    -    Challenge response.

9                 The base station shall set this field as specified in 2.3.12.1.5.

10          RESERVED    -    Reserved bits.

11                 The base station shall set this field to '000000'.

### 3.7.4.2 Service Option Request Order

<sup>2</sup> The *Service Option Request Order* can be sent only on the f-dsch.

| <b>Order Specific Field</b> | <b>Length (bits)</b> |
|-----------------------------|----------------------|
| ORDQ                        | 8                    |
| SERVICE_OPTION              | 16                   |

4

The base station shall set this field to '00000000'.

7

SERVICE\_OPTION - Service option.

8

The base station shall set this field to the service option code shown in [30], corresponding to the requested or alternative service option.

## 1    3.7.4.3 Service Option Response Order

2    The *Service Option Response Order* can be sent only on the f-dsch.

3

| <b>Order Specific Field</b> | <b>Length (bits)</b> |
|-----------------------------|----------------------|
| ORDQ                        | 8                    |
| SERVICE_OPTION              | 16                   |

4

5            ORDQ    -    Order qualification code.

6                 The base station shall set this field to '00000000'.

7            SERVICE\_OPTION    -    Service option.

8                 The base station shall set this field to the service option code  
9                 shown in [30], corresponding to the accepted service option, or  
10                to '0000000000000000' to reject the last service option  
11                requested by the mobile station.

1      3.7.4.4 Status Request Order

2      The *Status Request Order* can be sent only on the f-dsch. The ORDQ field of the *Status*  
 3      *Request Order* specifies the information record to be returned by the mobile station in the  
 4      *Status Message*.

5

| Order Specific Field | Length (bits) |
|----------------------|---------------|
| ORDQ                 | 8             |

6

7      ORDQ - Order qualification code.

8      The base station shall set this field to the order qualification  
 9      code corresponding to the information record type to be  
 10     returned by the mobile station in the *Status Message*, as  
 11     shown in Table 3.7.4.4-1.

12     If MOB P REV is equal to or greater than seven, the base  
 13     station shall not request the Call Mode information record  
 14     (record type '00000111' in Table 3.7.2.3.2.15-2).

15

16

**Table 3.7.4.4-1. Status Request ORDQ Values**

| Information Record Requested        | ORDQ (binary) |
|-------------------------------------|---------------|
| Reserved                            | 00000110      |
| Call Mode                           | 00000111      |
| Terminal Information                | 00001000      |
| Roaming Information                 | 00001001      |
| Security Status                     | 00001010      |
| IMSI                                | 00001100      |
| ESN                                 | 00001101      |
| IMSI_M                              | 00001110      |
| IMSI_T                              | 00001111      |
| All other ORDQ values are reserved. |               |

## 1    3.7.4.5 Registration Accepted Order

2    The *Registration Accepted Order* can be sent only on the f-csch.

3

| <b>Order Specific Field</b>        | <b>Length (bits)</b> |
|------------------------------------|----------------------|
| ORDQ                               | 8                    |
| ROAM_INDI                          | 0 or 8               |
| <a href="#">C SIG_ENCRYPT_MODE</a> | 0 or 3               |
| <a href="#">USE_NEW_KEY</a>        | <del>0 or 1</del>    |
| <a href="#">ENC_KEY_SIZE</a>       | 0 or 3               |
| <a href="#">KEY_SEQ</a>            | <del>0 or 4</del>    |
| RESERVED                           | 0 – 7 (as needed)    |

4

5    ORDQ - Order qualification code.

6    If only ORDQ is included in the order, the base station shall set  
7    this field to '00000000'. If only ORDQ and ROAM\_INDI are  
8    included in the order, the base station shall set this field to  
9    '00000101'. If ORDQ, ROAM\_INDI, and the signaling encryption  
10   related fields are included in the order, the base station shall set  
11   this field to '00000111'.

12    ROAM\_INDI - Roaming display indication.

13    If ORDQ is set to '00000000', the base station shall omit this field.

14    If ORDQ is set to '00000101' or '00000111', the base station shall  
15   include this field and shall set it to the appropriate ROAM\_INDI  
16   code corresponding to the MS roaming condition. These values  
17   are defined in [30].18    [C SIG\\_ENCRYPT\\_MODE](#) - [Common channel sSignaling message](#) encryption mode indicator.19    If ORDQ is set to '00000111', the base station shall include this  
20   field and shall set it to [the common channel](#) signaling [message](#)  
21   encryption mode, as shown in Table 3.7.4.5-1; otherwise the base  
22   station shall omit this field.

1

**Table 3.7.4.5-1. (Part 1 of 2) Signaling Message Encryption Modes**

| <b>C SIG_ENCRYPT_MOD<br/>E Field<br/>(binary)</b> | <b>Encryption Mode Used</b>                                   |
|---------------------------------------------------|---------------------------------------------------------------|
| 000                                               | <a href="#">Common Channel</a> Signaling eEncryption disabled |
| 001                                               | Enhanced -Cellular Message Encryption Algorithm enabled       |
| <a href="#">010</a>                               | <a href="#">Rijndael Encryption Algorithm enabled</a>         |
| <a href="#">011010</a> - 111                      | Reserved                                                      |

2

1

2

**Table 3.7.4.5-1 (Part 2 of 2). Signaling Message Encryption Modes**

| <u>D SIG ENCRYPT MOD E Field<sup>6</sup> (binary)</u> | <u>Encryption Mode Used</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <u>000</u>                                            | <p>If D SIG ENCRYPT MODE<sub>r</sub> is included and is set to '000' in a <i>Channel Assignment Message</i> or <i>Extended Channel Assignment Message</i>, the mobile station is to continue to use the current common channel encryption mode and algorithm for the dedicated channel.</p> <p>If D SIG ENCRYPT MODE<sub>r</sub> is included and is set to '000' in a <i>Security Mode Command Message</i>, <i>General Handoff Direction Message</i> or <i>Universal Handoff Direction Message</i>, the mobile station is to disable dedicated channel Signaling encryption.</p> |
| <u>001</u>                                            | <u>Enhanced Cellular Message Encryption Algorithm enabled</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <u>010</u>                                            | <u>Rijndael Encryption Algorithm enabled</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <u>011010 - 111</u>                                   | <u>Reserved</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

3

4

USE\_NEW\_KEY — Use new encryption key indication.

If SIG\_ENCRYPT\_MODE is set to '001', the base station shall include this field; otherwise, the base station shall omit this field. If this field is included, the base station shall set this field as follows:

The base station shall set this field to '0' to indicate that the stored encryption key is to be used by the mobile station, and to '1' to indicate that the new encryption key is to be used by the mobile station.

ENC\_KEY\_SIZE — Key size used for encryption

<sup>6</sup> D\_SIG\_ENCRYPT\_MODE<sub>r</sub> = '000' is used to indicate to the mobile station that the current common channel encryption mode (and encryption algorithm, if encryption is turned on) shall be used for dedicated channel encryption. D\_SIG\_ENCRYPT\_MODE<sub>s</sub> = '000' means that no dedicated channel extended encryption shall be performed in the mobile station.

1           If C SIG ENCRYPT MODE is set to '001' if USE\_NEW\_KEY is  
 2           not included, or if USE\_NEW\_KEY is included and is set to '0',  
 3           the base station shall omit this field; otherwise, the base  
 4           station shall include this field and set this field to the  
 5           encryption key\_size used for encryption according to as  
 6           shown in Table 3.7.4.5-2; otherwise, the base station shall  
 7           omit this field.

8           **Table 3.7.4.5-2. ENC\_KEY\_SIZE Values**

| <b>ENC_KEY_SIZE (binary)</b> | <b>Descriptions</b> |
|------------------------------|---------------------|
| 000                          | 40 bits Reserved    |
| 001                          | 64 bits             |
| 010                          | 128 bits            |
| 011-111                      | Reserved            |

9           KEY\_SEQ         Encryption key sequence number.

10           If USE\_NEW\_KEY is included and is set to '0', the base station  
 11           shall include this field; otherwise, the base station shall omit this  
 12           field. If this field is included, the base station shall set it to the  
 13           encryption key sequence number to be used by the mobile  
 14           station.

15           RESERVED        -     Reserved bits.

16           The base station shall add reserved bits as needed in order to  
 17           make the total length of the fields included in this order equal  
 18           to an integer number of octets. The base station shall set  
 19           these bits to '0'.

## 1    3.7.4.6 Periodic Pilot Measurement Request Order

2    The *Periodic Pilot Measurement Request Order* can be sent only on the f-dsch.

3

| <b>Order Specific Field</b> | <b>Length (bits)</b> |
|-----------------------------|----------------------|
| ORDQ                        | 8                    |
| MIN_PILOT_PWR_THRESH        | 5                    |
| MIN_PILOT_EC_IO_THRESH      | 5                    |
| INCL_SETPT                  | 1                    |
| RESERVED                    | <b>65</b>            |

4

5    ORDQ    -    Order qualification code.

6              If INCL\_SETPT equals '0', the base station shall set this field  
 7              to a report period, in units of 0.08 seconds, in the range of  
 8              '00001010' to '1111110' inclusive; otherwise, the base station  
 9              shall set this field to a report period, in units of 0.08 seconds,  
 10             in the range of '00000001' to '11111110' inclusive. The base  
 11             station shall set this field to '11111111' to request a one time  
 12             *Periodic Pilot Strength Measurement Message*.

13    MIN\_PILOT\_PWR-

14            -    The threshold of the total received  $E_c$  of the pilots in the  
 15            Active Set.

16              If the mobile station is to report pilot strength measurements  
 17              periodically to the base station irrespective of the pilot power  
 18              of the Active Set, the base station shall set this field to  
 19              '11111'; otherwise, the base station shall set this field to the  
 20              total  $E_c$  threshold, expressed as an unsigned binary number  
 21              equal to:

$$\lceil (10 \times \log_{10}(pilot\_ec\_thresh) + 120) / 2 \rceil$$

22              where *pilot\_ec\_thresh* is the threshold of the mobile station  
 23              received total  $E_c$  (in mW) of the pilots in the Active Set below  
 24              which the mobile station is to send the pilot strength  
 25              measurements periodically to the base station.

27    MIN\_PILOT\_EC-

28            -    Pilot Strength Threshold of Serving Frequency.

29              If the mobile station is to ignore this threshold, the base  
 30              station shall set this field to '11111'; otherwise, the base  
 31              station shall set this field to the total  $E_c/I_o$  threshold,  
 32              expressed as an unsigned binary number equal to:

$$\lfloor -20 \times \log_{10} pilot\_streng\_thresh \rfloor,$$

1                   where *pilot\_streng\_thresh* is the threshold of the total received  
2                   E<sub>C</sub>/I<sub>0</sub> of the pilots in Active Set (see 2.6.6.2.2) below which the  
3                   mobile station is to send the pilot strength measurements  
4                   periodically to the base station.

- 5                   INCL\_SETPT    - Include Setpoint information indicator.  
6                                 The base station shall set this field to '1' to indicate that the  
7                                 mobile station shall include outer loop E<sub>b</sub>/N<sub>t</sub> setpoint  
8                                 information in the *Periodic Pilot Strength Measurement*  
9                                 Message; otherwise, the base station shall set this field to '0'.  
10                  RESERVED     - Reserved bits.  
11                                 The base station shall set this field to '000000'. |

## 1    3.7.4.7 Retry Order

2    The *Retry Order* can be sent on either the f-csch or on the f-dsch to indicate the requested  
 3    service is rejected and specify the retry delay.

4

| <b>Order Specific Field</b> | <b>Length (bits)</b> |
|-----------------------------|----------------------|
| ORDQ                        | 8                    |
| RETRY_TYPE                  | 3                    |
| RETRY_DELAY                 | 0 or 8               |
| <u>RESERVED</u>             | <u>5</u>             |

- 5              ORDQ    -    Order qualification code.  
 6                 The base station shall set this field to '00000000'.  
 7              RETRY\_TYPE    -    Retry delay type.  
 8                 The base station shall set this field specified as in Table  
 9                 3.7.4.7-1.

10              **Table 3.7.4.7-1 Retry Delay Type**

| <b>Value<br/>(binary)</b> | <b>Retry Type</b>            | <b>Usage</b>                                                                                                                                           |
|---------------------------|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 000                       | Clear all                    | The <i>Retry Order</i> is used to clear any existent retry delay                                                                                       |
| 001                       | Origination                  | The <i>Retry Order</i> specifies the RETRY_DELAY for a <i>Packet Data Origination Message</i> or <i>Enhanced Origination Message</i>                   |
| 010                       | Resource Request             | The <i>Retry Order</i> specifies the RETRY_DELAY for a <i>Resource Request Message</i> or <i>Resource Request Mini Message</i>                         |
| 011                       | Supplemental Channel Request | The <i>Retry Order</i> specifies the RETRY_DELAY for a <i>Supplemental Channel Request Message</i> or <i>Supplemental Channel Request Mini Message</i> |
| 100-111                   | Reserved                     |                                                                                                                                                        |

11

12

- RETRY\_DELAY    -    Retry delay.

If RETRY\_TYPE is set to '000' the base station shall omit this field. Otherwise the base station shall include this field and set it as follows:

If RETRY\_TYPE is set to '001', the base station shall set this field to the duration of the delay interval, as shown in Table 3.7.4.7-2, during which the mobile station is not permitted to send an *Origination Message* or an *Enhanced Origination Message* with the same Packet Data Service Option. The base station shall set this field to '00000000' to indicate that there is no retry delay or to clear a previously set retry delay.

**Table 3.7.4.7-2 Retry Delay for RETRY\_TYPE '001'**

| Bits    | Description                                                         |
|---------|---------------------------------------------------------------------|
| 7 (MSB) | Unit for the Retry Delay<br>‘0’ – unit is 1s<br>‘1’ – unit is 1 min |
| 6 to 0  | Retry Delay interval                                                |

If RETRY\_TYPE is set to '010' or '011', the base station shall set this field to the duration of the delay interval in units of 320 ms during which the mobile station is not permitted to send another *Supplemental Channel Request (Mini) Message* or *Resource Request (Mini) Message*. The base station shall set RETRY\_DELAY to '00000000' to indicate that there is no retry delay or to clear a previously set retry delay. The base station shall set RETRY\_DELAY to '11111111' to indicate that the mobile station is to refrain from sending the request indefinitely.

RESERVED - Reserved bits.

The base station shall set this field to '00000'.

1    3.7.5 Information Records

2    On the f-csch, information records may be included in the *Feature Notification Message*. On  
3    the f-dsch, information records may be included in the *Alert with Information Message*, the  
4    *Flash with Information Message*, the *Extended Alert with Information Message*, and the  
5    *Extended Flash with Information Message*, the Service Request Message, the Service  
6    Response Message, the Service Connect Message, the General Handoff Direction Message,  
7    and the Universal Handoff Direction Message. Table 3.7.5-1 lists the information record  
8    type values that may be used with each message type. The following sections describe the  
9    contents of each of the record types in detail.

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**Table 3.7.5-1. Information Record Types (Part 1 of 3)**

4

| <b>Information Record</b> | <b>Record Type<br/>(binary)</b> | <b>Message Type</b> | <b>f-csch</b> | <b>f-dsch</b> |
|---------------------------|---------------------------------|---------------------|---------------|---------------|
| Display                   | 00000001                        | FNM                 | Y             | N             |
|                           |                                 | AWI                 | N             | Y             |
|                           |                                 | FWI                 | N             | Y             |
| Called Party Number       | 00000010                        | FNM                 | Y             | N             |
|                           |                                 | AWI                 | N             | Y             |
|                           |                                 | FWI                 | N             | Y             |
| Calling Party Number      | 00000011                        | FNM                 | Y             | N             |
|                           |                                 | AWI                 | N             | Y             |
|                           |                                 | FWI                 | N             | Y             |
| Connected Number          | 00000100                        | FWI                 | N             | Y             |
| Signal                    | 00000101                        | FNM                 | Y             | N             |
|                           |                                 | AWI                 | N             | Y             |
|                           |                                 | FWI                 | N             | Y             |
| Message Waiting           | 00000110                        | FNM                 | Y             | N             |
|                           |                                 | AWI                 | N             | Y             |
|                           |                                 | FWI                 | N             | Y             |
|                           |                                 |                     |               |               |
| Service Configuration     | 00000111                        | SRQM                | N             | Y             |
|                           |                                 | SRPM                | N             | Y             |
|                           |                                 | SCM                 | N             | Y             |
|                           |                                 | GHDM                | N             | Y             |
|                           |                                 | UHDM                | N             | Y             |
| Called Party Subaddress   | 00001000                        | FNM                 | Y             | N             |
|                           |                                 | AWI                 | N             | Y             |
|                           |                                 | FWI                 | N             | Y             |

5

1

**Table 3.7.5-1. Information Record Types (Part 2 of 3)**

| <b>Information Record</b> | <b>Record Type<br/>(binary)</b> | <b>Message Type</b> | <b>f-csch</b> | <b>f-dsch</b> |
|---------------------------|---------------------------------|---------------------|---------------|---------------|
| Calling Party Subaddress  | 00001001                        | FNM                 | Y             | N             |
|                           |                                 | AWI                 | N             | Y             |
|                           |                                 | FWI                 | N             | Y             |
| Connected Subaddress      | 00001010                        | FWI                 | N             | Y             |
| Redirecting Number        | 00001011                        | FNM                 | Y             | N             |
|                           |                                 | AWI                 | N             | Y             |
|                           |                                 | FWI                 | N             | Y             |
| Redirecting Subaddress    | 00001100                        | FNM                 | Y             | N             |
|                           |                                 | AWI                 | N             | Y             |
|                           |                                 | FWI                 | N             | Y             |
| Meter Pulses              | 00001101                        | AWI                 | N             | Y             |
|                           |                                 | FWI                 | N             | Y             |
| Parametric Alerting       | 00001110                        | FNM                 | Y             | N             |
|                           |                                 | AWI                 | N             | Y             |
|                           |                                 | FWI                 | N             | Y             |
| Line Control              | 00001111                        | AWI                 | N             | Y             |
|                           |                                 | FWI                 | N             | Y             |
| Extended Display          | 00010000                        | FNM                 | Y             | N             |
|                           |                                 | AWI                 | N             | Y             |
|                           |                                 | FWI                 | N             | Y             |

2

**Table 3.7.5-1. Information Record Types (Part 3 of 3)**

| <b>Information Record</b>                                                                                                                                                                                                                                                                                       | <b>Record Type<br/>(binary)</b> | <b>Message Type</b> | <b>f-csch</b> | <b>f-dsch</b> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|---------------------|---------------|---------------|
| Non-Negotiable Service Configuration                                                                                                                                                                                                                                                                            | 00010011                        | SCM                 | N             | Y             |
|                                                                                                                                                                                                                                                                                                                 |                                 | GHDM                | N             | Y             |
|                                                                                                                                                                                                                                                                                                                 |                                 | UHDM                | N             | Y             |
| Multiple Character Extended Display                                                                                                                                                                                                                                                                             | 00010100                        | FNM                 | Y             | N             |
|                                                                                                                                                                                                                                                                                                                 |                                 | AWI                 | N             | Y             |
|                                                                                                                                                                                                                                                                                                                 |                                 | FWI                 | N             | Y             |
| Call Waiting Indicator                                                                                                                                                                                                                                                                                          | 00010101                        | AWI                 | N             | Y             |
|                                                                                                                                                                                                                                                                                                                 |                                 | FWI                 | N             | Y             |
| Extended Record Type - International                                                                                                                                                                                                                                                                            | 11111110                        | Country-Specific    |               |               |
| <p>All other record type values are reserved.</p> <p>“AWI” refers to either the <i>Alert With Information Message</i> or the <i>Extended Alert With Information Message</i>.</p> <p>“FWI” refers to either the <i>Flash With Information Message</i> or the <i>Extended Flash With Information Message</i>.</p> |                                 |                     |               |               |

## 1    3.7.5.1 Display

2    This information record allows the network to supply display information that may be  
3    displayed by the mobile station.

4

| Type-Specific Field | Length (bits) |
|---------------------|---------------|
|---------------------|---------------|

One or more occurrences of the following field:

|       |   |
|-------|---|
| CHARi | 8 |
|-------|---|

5

6    CHARi - Character.

7    The base station shall include one occurrence of this field for  
8    each character to be displayed. The base station shall set  
9    each occurrence of this field to the ASCII representation  
10   corresponding to the character entered, as specified in [9],  
11   with the most significant bit set to '0'.

## 1    3.7.5.2 Called Party Number

2    This information record identifies the called party's number.

3

| Type-Specific Field | Length (bits) |
|---------------------|---------------|
| NUMBER_TYPE         | 3             |
| NUMBER_PLAN         | 4             |

Zero or more occurrences of the following field:

|          |   |
|----------|---|
| CHARi    | 8 |
| RESERVED | 1 |

4

5    NUMBER\_TYPE

- Type of number.

6

7

8

The base station shall set this field to the NUMBER\_TYPE value shown in Table 2.7.1.3.2.4-2 corresponding to the type of the called number, as defined in [7], Section 4.5.9.

9

NUMBER\_PLAN

- Numbering plan.

10

11

12

13

The base station shall set this field to the NUMBER\_PLAN value shown in Table 2.7.1.3.2.4-3 corresponding to the numbering plan used for the called number, as defined in [7], Section 4.5.9.

14

CHARi

- Character.

15

16

17

18

19

The base station shall include one occurrence of this field for each character in the called number. The base station shall set each occurrence of this field to the ASCII representation corresponding to the character, as specified in [9], with the most significant bit set to '0'.

20

RESERVED

- Reserved bits.

21

The base station shall set this field to '0'.

## 1    3.7.5.3 Calling Party Number

2    This information record identifies the calling party's number.

3

| Type-Specific Field | Length (bits) |
|---------------------|---------------|
| NUMBER_TYPE         | 3             |
| NUMBER_PLAN         | 4             |
| PI                  | 2             |
| SI                  | 2             |

Zero or more occurrences of the following field:

|       |   |
|-------|---|
| CHARi | 8 |
|-------|---|

|          |   |
|----------|---|
| RESERVED | 5 |
|----------|---|

4

- 5    NUMBER\_TYPE    -    Type of number.  
      The base station shall set this field to the NUMBER\_TYPE  
      value shown in Table 2.7.1.3.2.4-2 corresponding to the type  
      of the calling number, as defined in [7], Section 4.5.9.
- 9    NUMBER\_PLAN    -    Numbering plan.  
      The base station shall set this field to the NUMBER\_PLAN  
      value shown in Table 2.7.1.3.2.4-3 corresponding to the  
      numbering plan used for the calling number, as defined in [7],  
      Section 4.5.9.
- 14    PI    -    Presentation indicator.  
      This field indicates whether or not the calling number should  
      be displayed.  
      The base station shall set this field to the PI value shown in  
      Table 2.7.4.4-1 corresponding to the presentation indicator,  
      as defined in [7], Section 4.5.9.
- 20    SI    -    Screening indicator.  
      This field indicates how the calling number was screened.  
      The base station shall set this field to the SI value shown in  
      Table 2.7.4.4-2 corresponding to the screening indicator  
      value, as defined in [7], Section 4.5.9.
- 25    CHARi    -    Character.  
      The base stations shall include one occurrence of this field for  
      each character in the calling number. The base station shall  
      set each occurrence of this field to the ASCII representation  
      corresponding to the character, as specified in [9], with the  
      most significant bit set to '0'.

1      RESERVED    -    Reserved bits.

2                  The base station shall set this field to '00000'.

## 1    3.7.5.4 Connected Number

2    This information record identifies the responding party to a call.

3

| Type-Specific Field | Length (bits) |
|---------------------|---------------|
| NUMBER_TYPE         | 3             |
| NUMBER_PLAN         | 4             |
| PI                  | 2             |
| SI                  | 2             |

Zero or more occurrences of the following field:

|       |   |
|-------|---|
| CHARi | 8 |
|-------|---|

|          |   |
|----------|---|
| RESERVED | 5 |
|----------|---|

4

- 5    NUMBER\_TYPE    -    Type of number.  
      The base station shall set this field to the NUMBER\_TYPE  
      value shown in Table 2.7.1.3.2.4-2 corresponding to the type  
      of the connected number, as defined in [7], Section 4.5.9.
- 9    NUMBER\_PLAN    -    Numbering plan.  
      The base station shall set this field to the NUMBER\_PLAN  
      value shown in Table 2.7.1.3.2.4-3 corresponding to the  
      numbering plan used for the connected number, as defined in  
      [7], Section 4.5.9.
- 14    PI    -    Presentation indicator.  
      This field indicates whether or not the connected number  
      should be displayed.  
      The base station shall set this field to the PI value shown in  
      Table 2.7.4.4-1 corresponding to the presentation indicator,  
      as defined in [7], Section 4.5.9.
- 20    SI    -    Screening indicator.  
      This field indicates how the connected number was screened.  
      The base station shall set this field to the SI value shown in  
      Table 2.7.4.4-2 corresponding to the screening indicator  
      value, as defined in [7], Section 4.5.9.
- 25    CHARi    -    Character.  
      The base station shall include one occurrence of this field for  
      each character in the connected number. The base station  
      shall set each occurrence of this field to the ASCII  
      representation corresponding to the character, as specified in  
      [9], with the most significant bit set to '0'.

1      RESERVED    -    Reserved bits.

2                  The base station shall set this field to '00000'.

## 1    3.7.5.5 Signal

2    This information record allows the network to convey information to a user by means of  
 3    tones and other alerting signals.

4    The Standard Alert is defined as SIGNAL\_TYPE = '10', ALERT\_PITCH = '00' and SIGNAL =  
 5    '000001'.

6

| Type-Specific Field | Length (bits) |
|---------------------|---------------|
| SIGNAL_TYPE         | 2             |
| ALERT_PITCH         | 2             |
| SIGNAL              | 6             |
| RESERVED            | 6             |

7

8    SIGNAL\_TYPE - Signal type.

9

10   The base station shall set this field to the signal type value  
 11   shown in Table 3.7.5.5-1.

12                      **Table 3.7.5.5-1. Signal Type**

| Description     | SIGNAL_TYPE<br>(binary) |
|-----------------|-------------------------|
| Tone signal     | 00                      |
| ISDN Alerting   | 01                      |
| IS-54B Alerting | 10                      |
| Reserved        | 11                      |

13

14    ALERT\_PITCH - Pitch of the alerting signal.

15

16   This field is ignored unless SIGNAL\_TYPE is '10', IS-54B  
 17   Alerting.

18

19   If SIGNAL\_TYPE is '10', the base station shall set this field to  
 20   the alert pitch shown in Table 3.7.5.5-2; otherwise, the base  
 21   station shall set this field to '00'.

**Table 3.7.5.5-2. Alert Pitch**

| <b>Description</b>            | <b>ALERT_PITCH<br/>(binary)</b> |
|-------------------------------|---------------------------------|
| Medium pitch (standard alert) | 00                              |
| High pitch                    | 01                              |
| Low pitch                     | 10                              |
| Reserved                      | 11                              |

2

3

SIGNAL - Signal code.

4

5

6

7

8

9

The base station shall set this field to the specific signal desired. If SIGNAL\_TYPE is '00', the base station shall set this field as described in Table 3.7.5.5-3. If SIGNAL\_TYPE is '01', the base station shall set this field as described in Table 3.7.5.5-4. If SIGNAL\_TYPE is '10', the base station shall set this field as described in Table 3.7.5.5-5.

10

**Table 3.7.5.5-3. Tone Signals (SIGNAL\_TYPE = '00')**

| <b>Description</b>                                                                                                                         | <b>SIGNAL<br/>(binary)</b> |
|--------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| Dial tone on: a continuous 350 Hz tone added to a 440 Hz tone.                                                                             | 000000                     |
| Ring back tone on: a 440 Hz tone added to a 480 Hz tone repeated in a 2 s on, 4 s off pattern.                                             | 000001                     |
| Intercept tone on: alternating 440 Hz and 620 Hz tones, each on for 250 ms.                                                                | 000010                     |
| Abbreviated intercept: alternating 440 Hz and 620 Hz tones, each on for 250 ms, repeated for four seconds.                                 | 000011                     |
| Network congestion (reorder) tone on: a 480 Hz tone added to a 620 Hz tone repeated in a 250 ms on, 250 ms off cycle.                      | 000100                     |
| Abbreviated network congestion (reorder): a 480 Hz tone added to a 620 Hz tone repeated in a 250 ms on, 250 ms off cycle for four seconds. | 000101                     |
| Busy tone on: a 480 Hz tone added to a 620 Hz tone repeated in a 500 ms on, 500 ms off cycle.                                              | 000110                     |
| Confirm tone on: a 350 Hz tone added to a 440 Hz tone repeated 3 times in a 100 ms on, 100 ms off cycle.                                   | 000111                     |
| Answer tone on: answer tone is not presently used in North American networks.                                                              | 001000                     |
| Call waiting tone on: a 300 ms burst of 440 Hz tone.                                                                                       | 001001                     |
| Pip tone on: four bursts of 480 Hz tone (0.1 s on, 0.1 s off).                                                                             | 001010                     |
| Tones off                                                                                                                                  | 111111                     |
| All other SIGNAL values are reserved                                                                                                       |                            |

**Table 3.7.5.5-4. ISDN Alerting (SIGNAL\_TYPE = '01')**

| <b>Description</b>                                                                                  | <b>SIGNAL<br/>(binary)</b> |
|-----------------------------------------------------------------------------------------------------|----------------------------|
| Normal Alerting: 2.0 s on, 4.0 s off, repeating                                                     | 000000                     |
| Intergroup Alerting: 0.8 s on, 0.4 s off, 0.8 s on, 4.0 s off, repeating                            | 000001                     |
| Special/Priority Alerting: 0.4 s on, 0.2 s off, 0.4 s on, 0.2 s off, 0.8 s on, 4.0 s off, repeating | 000010                     |
| Reserved (ISDN Alerting pattern 3)                                                                  | 000011                     |
| “Ping ring”: single burst of 500 ms                                                                 | 000100                     |
| Reserved (ISDN Alerting pattern 5)                                                                  | 000101                     |
| Reserved (ISDN Alerting pattern 6)                                                                  | 000110                     |
| Reserved (ISDN Alerting pattern 7)                                                                  | 000111                     |
| Alerting off                                                                                        | 001111                     |
| All other SIGNAL values are reserved                                                                |                            |

2

1

**Table 3.7.5.5-5. IS-54B Alerting (SIGNAL\_TYPE = '10')**

| <b>Description</b>                                                                                                                 | <b>SIGNAL<br/>(binary)</b> |
|------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| <i>No Tone:</i> Off                                                                                                                | 000000                     |
| <i>Long:</i> 2.0 s on, 4.0 s off, repeating (standard alert)                                                                       | 000001                     |
| <i>Short-Short:</i> 0.8 s on, 0.4 s off, 0.8 s on, 4.0 s off, repeating                                                            | 000010                     |
| <i>Short-Short-Long:</i> 0.4 s on, 0.2 s off, 0.4 s on, 0.2 s off, 0.8 s on, 4.0 s off, repeating                                  | 000011                     |
| <i>Short-Short-2:</i> 1.0 s on, 1.0 s off, 1.0 s on, 3.0 s off, repeating.                                                         | 000100                     |
| <i>Short-Long-Short:</i> 0.5 s on, 0.5 s off, 1.0 s on, 0.5 s off, 0.5 s on, 3.0 s off, repeating.                                 | 000101                     |
| <i>Short-Short-Short-Short:</i> 0.5 s on, 0.5 s off, 0.5 s on, 0.5 s off, 0.5 s on, 0.5 s off, 0.5 s on, 2.5 s off, repeating.     | 000110                     |
| <i>PBX Long:</i> 1.0 s on, 2.0 s off, repeating.                                                                                   | 000111                     |
| <i>PBX Short-Short:</i> 0.4 s on, 0.2 s off, 0.4 s on, 2.0 off, repeating.                                                         | 001000                     |
| <i>PBX Short-Short-Long:</i> 0.4 s on, 0.2 s off, 0.4 s on, 0.2 s off, 0.8 s on, 1.0 s off, repeating.                             | 001001                     |
| <i>PBX Short-Long-Short:</i> 0.4 s on, 0.2 s off, 0.8 s on, 0.2 s off, 0.4 s on, 1.0 s off, repeating.                             | 001010                     |
| <i>PBX Short-Short-Short-Short:</i> 0.4 s on, 0.2 s off, 0.4 s on, 0.2 s off, 0.4 s on, 0.2 s off, 0.4 s on, 0.8 s off, repeating. | 001011                     |
| <i>Pip-Pip-Pip-Pip:</i> 0.1 s on, 0.1 s off, 0.1 s on, 0.1 s off, 0.1 s on, 0.1 s off, 0.1 s on.                                   | 001100                     |
| All other SIGNAL values are reserved                                                                                               |                            |

2

3

RESERVED - Reserved bits.

4

The base station shall set this field to '000000'.

1    3.7.5.6 Message Waiting

2    This information record conveys to the user the number of messages waiting.

3

| Type-Specific Field | Length (bits) |
|---------------------|---------------|
| MSG_COUNT           | 8             |

4

5    MSG\_COUNT    -    Number of waiting messages.

6                      The base station shall set this field to the number of messages  
7                      waiting.

## 1    3.7.5.7 Service Configuration

2    For the mobile station, this record is included in a *Status Response Message* to return the  
 3    current service configuration, and in a *Service Request Message* and a *Service Response*  
 4    *Message* to propose a service configuration.

5    For a base station, this record is included in a *Service Request Message* and a *Service*  
 6    *Response Message* to propose a service configuration. It is included in a *Service Connect*  
 7    *Message* to specify an actual service configuration to be used. It can be included in a  
 8    *General Handoff Direction Message* and *Universal Handoff Direction Message* to specify an  
 9    actual service configuration to be used.

10

| Type-Specific Field | Length (bits) |
|---------------------|---------------|
| FOR_MUX_OPTION      | 16            |
| REV_MUX_OPTION      | 16            |
| FOR_NUM_BITS        | 8             |
| REV_NUM_BITS        | 8             |
| NUM_CON_REC         | 8             |

NUM\_CON\_REC occurrences of the following variable-length record:

|                 |                         |
|-----------------|-------------------------|
| RECORD_LEN      | 8                       |
| CON_REF         | 8                       |
| SERVICE_OPTION  | 16                      |
| FOR_TRAFFIC     | 4                       |
| REV_TRAFFIC     | 4                       |
| UI_ENCRYPT_MODE | 3                       |
| SR_ID           | 3                       |
| RLP_INFO_INCL   | 1                       |
| RLP_BLOB_LEN    | 0 or 4                  |
| RLP_BLOB        | 0 or (8 × RLP_BLOB_LEN) |
| QOS_PARMS_INCL  | 1                       |
| QOS_PARMS_LEN   | 0 or 5                  |
| QOS_PARMS       | 0 or variable           |
| QOS_RESERVED    | 0-7                     |
| RESERVED        | 0-7 (as needed)         |

|                |        |
|----------------|--------|
| FCH_CC_INCL    | 1      |
| FCH_FRAME_SIZE | 0 or 1 |
| FOR_FCH_RC     | 0 or 5 |
| REV_FCH_RC     | 0 or 5 |

|                 |        |
|-----------------|--------|
| DCCH_CC_INCL    | 1      |
| DCCH_FRAME_SIZE | 0 or 2 |
| FOR_DCCH_RC     | 0 or 5 |
| REV_DCCH_RC     | 0 or 5 |

(continues on next page)

1

| Type-Specific Field | Length (bits) |
|---------------------|---------------|
| FOR_SCH_CC_INCL     | 1             |
| NUM_FOR_SCH         | 0 or 2        |

NUM\_FOR\_SCH occurrences of the following three-field record

|                            |                          |
|----------------------------|--------------------------|
| FOR_SCH_ID                 | 2                        |
| FOR_SCH_MUX                | 16                       |
| SCH_CC_Type-specific field | Variable (see 3.7.5.7.1) |

|                 |        |
|-----------------|--------|
| REV_SCH_CC_INCL | 1      |
| NUM_REV_SCH     | 0 or 2 |

NUM\_REV\_SCH occurrences of the following three-field record

|                            |                          |
|----------------------------|--------------------------|
| REV_SCH_ID                 | 2                        |
| REV_SCH_MUX                | 16                       |
| SCH_CC_Type-specific field | Variable (see 3.7.5.7.1) |

|          |                 |
|----------|-----------------|
| RESERVED | 0-7 (as needed) |
|----------|-----------------|

2

- 3 FOR\_MUX\_OPTION - Forward Fundamental and Dedicated Control Channel  
4 multiplex option.

5 The mobile station shall set this field as follows:

6 For a *Status Response Message*, the mobile station shall  
7 set this field to the number of the multiplex option for the  
8 Forward Fundamental Channel, Forward Dedicated  
9 Control Channel, or both, if both present (e.g., 1  
10 corresponds to Multiplex Option 1).

11 For a *Service Request Message* and a *Service Response*  
12 *Message*, the mobile station shall set this field to the  
13 number of the multiplex option for the Forward  
14 Fundamental Channel, Forward Dedicated Control  
15 Channel, or both, if both present.

16 The base station shall set this field as follows:

1                   For a *Service Request Message* and a *Service Response  
Message*, the base station shall set this field to the  
2                   number of the multiplex option for the Forward  
3                   Fundamental Channel, Forward Dedicated Control  
4                   Channel, or both, if both present.  
5

6                   For a *Service Connect Message*, *General Handoff Direction  
Message*, and a *Universal Handoff Direction Message*, the  
7                   base station shall set this field to the number of multiplex  
8                   option for the Forward Fundamental Channel, Forward  
9                   Dedicated Control Channel, or both, if both present.  
10

- 11           REV\_MUX\_OPTION     - Reverse Fundamental and Dedicated Control Channel  
12                                multiplex option.

13                   The mobile station shall set this field as follows:

14                   For a *Status Response Message*, the mobile station shall  
15                   set this field to the number of the multiplex option for the  
16                   Reverse Fundamental Channel, Reverse Dedicated Control  
17                   Channel, or both, if both present(e.g., 1 corresponds to  
18                   Multiplex Option 1).

19                   For a *Service Request Message* and a *Service Response  
Message*, the mobile station shall set this field to the  
20                   number of the multiplex option for the Reverse  
21                   Fundamental Channel, Reverse Dedicated Control  
22                   Channel, or both, if both present.  
23

24                   The base station shall set this field as follows:

25                   For a *Service Request Message* and a *Service Response  
Message*, the base station shall set this field to the  
26                   number of the multiplex option for the Reverse  
27                   Fundamental Channel, Reverse Dedicated Control  
28                   Channel, or both, if both present.  
29

30                   For a *Service Connect Message*, *General Handoff Direction  
Message*, and a *Universal Handoff Direction Message*, the  
31                   base station shall set this field to the number of the  
32                   multiplex option for the Reverse Fundamental Channel,  
33                   Reverse Dedicated Control Channel, or both, if both  
34                   present.  
35

- 36           FOR\_NUM\_BITS     - Set of number of bits per frame of the Forward Fundamental  
37                                Channel.

38                   The mobile station shall set this field as follows:

39                   The mobile station shall use the Forward Fundamental  
40                   Channel transmission set of number of bits per frame  
41                   specified in 2.7.4.28 for the specified Forward Traffic  
42                   Channel multiplex option.

1                   For a *Status Response Message*, the mobile station shall  
 2                   set the subfields corresponding to the Forward Traffic  
 3                   Channel transmission set of number of bits per frame of  
 4                   the current service configuration to '1', and shall set the  
 5                   remaining subfields to '0'. If FOR\_MUX\_OPTION is equal  
 6                   to 1 or 2, the mobile station shall set RESERVED to  
 7                   '0000'.

8                   For a *Service Request Message* and a *Service Response*  
 9                   *Message*, the mobile station shall set the subfields  
 10                  corresponding to the Forward Traffic Channel  
 11                  transmission set of number of bits per frame of the  
 12                  proposed service configuration to '1', and shall set the  
 13                  remaining subfields to '0'. If FOR\_MUX\_OPTION is equal  
 14                  to 1 or 2, the mobile station shall set RESERVED to  
 15                  '0000'.

16                  The base station shall set this field as follows:

17                  The base station shall set this field to the Forward  
 18                  Fundamental Channel transmission set of number of bits  
 19                  per frame specified in 2.7.4.28 for the specified Forward  
 20                  Traffic Channel multiplex option.

21                  For a *Service Request Message* or a *Service Response*  
 22                  *Message*, the base station shall set the subfields  
 23                  corresponding to the Forward Fundamental Channel  
 24                  transmission set of number of bits per frame of the  
 25                  proposed service configuration to '1', and shall set the  
 26                  remaining subfields to '0'. If FOR\_MUX\_OPTION is equal  
 27                  to 1 or 2, the base station shall set RESERVED to '0000'.

28                  For a *Service Connect Message*, *General Handoff Direction*  
 29                  *Message*, and a *Universal Handoff Direction Message*, the  
 30                  base station shall set the subfields corresponding to the  
 31                  Forward Fundamental Channel transmission set of  
 32                  number of bits per frame of the actual service  
 33                  configuration to be used to '1', and shall set the remaining  
 34                  subfields to '0'. If FOR\_MUX\_OPTION is equal to 1 or 2,  
 35                  the base station shall set RESERVED to '0000'.

- 36                  REV\_NUM\_BITS - Set of number of bits per frame of the Reverse Fundamental  
 37                  Channel.

38                  The mobile station shall set this field as follows:

39                  The mobile station shall use the Reverse Fundamental  
 40                  Channel transmission set of number of bits per frame  
 41                  specified in 2.7.4.28 for the specified Reverse Traffic  
 42                  Channel multiplex option.

1           For a *Status Response Message*, the mobile station shall  
 2           set the subfields corresponding to the Reverse Traffic  
 3           Channel transmission set of number of bits per frame of  
 4           the current service configuration to '1', and shall set the  
 5           remaining subfields to '0'. If REV\_MUX\_OPTION is equal  
 6           to 1 or 2, the mobile station shall set RESERVED to  
 7           '0000'.

8           For a *Service Request Message* and a *Service Response*  
 9           *Message*, the mobile station shall set the subfields  
 10          corresponding to the Reverse Traffic Channel transmission  
 11          set of number of bits per frame of the proposed service  
 12          configuration to '1', and shall set the remaining subfields  
 13          to '0'. If REV\_MUX\_OPTION is equal to 1 or 2, the mobile  
 14          station shall set RESERVED to '0000'.

15          The base station shall set this field as follows:

16          The base station shall set this field to the Reverse  
 17          Fundamental Channel transmission set of number of bits  
 18          per frame specified in 2.7.4.28 for the specified Reverse  
 19          Traffic Channel multiplex option.

20          For a *Service Request Message* or a *Service Response*  
 21          *Message*, the base station shall set the subfields  
 22          corresponding to the Reverse Fundamental Channel  
 23          transmission set of number of bits per frame of the  
 24          proposed service configuration to '1', and shall set the  
 25          remaining subfields to '0'. If REV\_MUX\_OPTION is equal  
 26          to 1 or 2, the base station shall set RESERVED to '0000'.

27          For a *Service Connect Message*, *General Handoff Direction*  
 28          *Message*, and a *Universal Handoff Direction Message*, the  
 29          base station shall set the subfields corresponding to the  
 30          Reverse Fundamental Channel transmission set of  
 31          number of bits per frame of the actual service  
 32          configuration to be used to '1', and shall set the remaining  
 33          subfields to '0'. If REV\_MUX\_OPTION is equal to 1 or 2,  
 34          the base station shall set RESERVED to '0000'.

35          NUM\_CON\_REC      - Number of service option connection records.

36          The mobile station shall set this field as follows:

37          The mobile station shall set this field to the number of  
 38          service option connection records included in the message.

39          The base station shall set this field as follows:

40          The base station shall set this field to the number of  
 41          service option connection records included in the message.

42          For a *Status Response Message*, the mobile station shall include one occurrence of the  
 43          following variable-length record for each service option connection of the current service  
 44          configuration. For a *Service Request Message* and a *Service Response Message*, the mobile

1 station shall include one occurrence of the following variable-length record for each service  
 2 option connection of the proposed service configuration.

3 For a *Service Request Message* or a *Service Response Message*, the base station shall  
 4 include one occurrence of the following variable-length record for each service option  
 5 connection of the proposed service configuration.

6 For a *Service Connect Message*, a *General Handoff Direction Message*, or a *Universal Handoff*  
 7 *Direction Message*, the base station shall include one occurrence of the following variable-  
 8 length record for each service option connection of the actual service configuration to be  
 9 used.

10 RECORD\_LEN - Service option connection record length.

11 The mobile station shall set this field as follows:

12 The mobile station shall set this field to the number of  
 13 octets included in this service option connection record  
 14 including this field.

15 The base station shall set this field as follows:

16 The base station shall set this field to the number of octets  
 17 included in this service option connection record including  
 18 this field.

19 CON\_REF - Service option connection reference.

20 The mobile station shall set this field as follows:

21 For a *Status Response Message*, the mobile station shall  
 22 set this field to the service option connection reference.

23 For a *Service Request Message* and a *Service Response*  
 24 *Message*, if the service option connection is part of the  
 25 current service configuration, the mobile station shall set  
 26 this field to the service option connection reference; otherwise,  
 27 the mobile station shall set this field to  
 28 '00000000'.

29 The base station shall set this field as follows:

30 For a *Service Request Message* or a *Service Response*  
 31 *Message*: if the service option connection is part of the  
 32 current service configuration, the base station shall set  
 33 this field to the service option connection reference; otherwise,  
 34 the base station shall set this field to  
 35 '00000000'.

1                   For a *Service Connect Message*, *General Handoff Direction*  
 2                   *Message*, and a *Universal Handoff Direction Message*, the  
 3                   base station shall set this field to the service option  
 4                   connection reference assigned to the service option  
 5                   connection.

6       SERVICE\_OPTION - Service option.

7                   The mobile station shall set this field as follows:

8                   For a *Status Response Message*, the mobile station shall  
 9                   set this field to the service option in use with the service  
 10                  option connection.

11                  For a *Service Request Message* and a *Service Response*  
 12                  *Message*, the mobile station shall set this field to the  
 13                  service option to be used with the service option  
 14                  connection.

15                  The base station shall set this field as follows:

16                  The base station shall set this field to the service option to  
 17                  be used with the service option connection.

18       FOR\_TRAFFIC - Forward Traffic Channel traffic type.

19                  The mobile station shall set this field as follows:

20                  For a *Status Response Message*, the mobile station shall  
 21                  set this field to the FOR\_TRAFFIC code shown in  
 22                  Table 3.7.5.7-1 corresponding to the Forward Traffic  
 23                  Channel traffic type in use with the service option  
 24                  connection.

25                  For a *Service Request Message* and a *Service Response*  
 26                  *Message*, the mobile station shall set this field to the  
 27                  FOR\_TRAFFIC code shown in Table 3.7.5.7-1  
 28                  corresponding to the Forward Traffic Channel traffic type  
 29                  to be used with the service option connection.

30                  The base station shall set this field as follows:

31                  The base station shall set this field to the FOR\_TRAFFIC  
 32                  code shown in Table 3.7.5.7-1 corresponding to the  
 33                  Forward Traffic Channel traffic type to be used with the  
 34                  service option connection.

1

**Table 3.7.5.7-1. FOR\_TRAFFIC Codes**

| <b>FOR_TRAFFIC<br/>(binary)</b>           | <b>Description</b>                                                                   |
|-------------------------------------------|--------------------------------------------------------------------------------------|
| 0000                                      | The service option connection does not use Forward Traffic Channel traffic.          |
| 0001                                      | The service option connection uses primary traffic on the Forward Traffic Channel.   |
| 0010                                      | The service option connection uses secondary traffic on the Forward Traffic Channel. |
| All other FOR_TRAFFIC codes are reserved. |                                                                                      |

2

3 REV\_TRAFFIC - Reverse Traffic Channel traffic type.

4 The mobile station shall set this field as follows:

5 For a *Status Response Message*, the mobile station shall  
6 set this field to the REV\_TRAFFIC code shown in  
7 Table 3.7.5.7-2 corresponding to the Reverse Traffic  
8 Channel traffic type in use with the service option  
9 connection.10 For a *Service Request Message* and a *Service Response*  
11 *Message*, the mobile station shall set this field to the  
12 REV\_TRAFFIC code shown in Table 3.7.5.7-2  
13 corresponding to the Reverse Traffic Channel traffic type  
14 to be used with the service option connection.

15 The base station shall set this field as follows:

16 The base station shall set this field to the REV\_TRAFFIC  
17 code shown in Table 3.7.5.7-2 corresponding to the  
18 Reverse Traffic Channel traffic type to be used with the  
19 service option connection.  
20

**Table 3.7.5.7-2. REV\_TRAFFIC Codes**

| <b>REV_TRAFFIC<br/>(binary)</b>           | <b>Description</b>                                                                   |
|-------------------------------------------|--------------------------------------------------------------------------------------|
| 0000                                      | The service option connection does not use Reverse Traffic Channel traffic.          |
| 0001                                      | The service option connection uses primary traffic on the Reverse Traffic Channel.   |
| 0010                                      | The service option connection uses secondary traffic on the Reverse Traffic Channel. |
| All other REV_TRAFFIC codes are reserved. |                                                                                      |

- UI\_ENCRYPT\_MODE - Encryption mode indicator for user information privacy.

The mobile station shall set this field as follows:

For a *Status Response Message*, the mobile station shall set this field to indicate the current user information encryption mode as shown in Table 3.7.5.7-3.

For a *Service Request Message* and a *Service Response Message*, the mobile station shall set this field to indicate the proposed user information encryption mode as shown in Table 3.7.5.7-3.

The base station shall set this field as follows:

For a *Service Request Message* or a *Service Response Message*: the base station shall set this field to the proposed user information encryption mode, as shown in Table 3.7.5.7-3.

For a *Service Connect Message*, *General Handoff Direction Message*, and a *Universal Handoff Direction Message*, the base station shall set this field to the assigned user information encryption mode, as shown in Table 3.7.5.7-3.

**Table 3.7.5.7-3. User information Encryption Modes**

| <b>UI_ENCRYPT_MODE<br/>Field<br/>(binary)</b> | <b>Encryption Mode Used</b>                                                                                                                                                                                                     |
|-----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 000                                           | User information Encryption disabled                                                                                                                                                                                            |
| 001                                           | User information Encryption with ORYX <a href="#">encryption</a> algorithm enabled (not applicable to voice service option). <a href="#">Encryption procedures specified in the service option standard shall be performed.</a> |
| <a href="#">010</a>                           | <a href="#">User information Encryption using the Rijndael encryption algorithm. Encryption procedures defined in 2.3.12.4.2.1 shall be performed.</a>                                                                          |
| <a href="#">010011</a> - 111                  | Reserved                                                                                                                                                                                                                        |

2 SR\_ID – Service reference identifier.

3 The mobile station shall set this field as follows:

4 For a *Status Response Message*, the mobile station shall  
 5 set this field to the service reference identifier in use.

6 For a *Service Request Message* and a *Service Response*  
 7 *Message*, the mobile station shall set this field as follows:

8 If the service option connection is a part of the current  
 9 service configuration, the mobile station shall set this field  
 10 to the service reference identifier in use.

11 If the service option connection is not a part of the current  
 12 service configuration, the mobile station shall perform the  
 13 following:

- 14 – If this service option connection request is initiated by  
 15 the base station, the mobile station shall set this field  
 16 to the value sent by the base station.

- 1           – If this service option connection request is initiated by  
 2           the mobile station, the mobile station shall perform the  
 3           following: if the service instance provides a service  
 4           reference identifier, the mobile station shall set this  
 5           field to the service reference identifier specified by the  
 6           service instance; otherwise, the mobile station shall set  
 7           this field to the smallest unused service reference  
 8           identifier number value between 1-and 6 inclusive.

9           The base station shall set this field as follows:

10           For a *Service Request Message*, or a *Service Response*  
 11           *Message*, a Service Connect Message, a General Handoff  
 12           Direction Message, or a Universal Handoff Direction  
 13           Message, the base station shall set this field as follows:

14           If the service option connection is a part of the current  
 15           service configuration, the base station shall set this field  
 16           to the service reference identifier in use.

17           If the service option connection is not a part of the current  
 18           service configuration, the base station shall perform the  
 19           following:

- 20           – If this service option connection request is initiated by  
 21           the mobile station, the base station shall set this field  
 22           to the value sent by the mobile station.  
 23           – If this service option connection request is initiated by  
 24           the base station, the base station shall perform the  
 25           following: if the service instance provides a service  
 26           reference identifier, the base station shall set this field  
 27           to the service reference identifier specified by the  
 28           service instance; otherwise, the base station shall set  
 29           this field to the highest unused service reference  
 30           identifier number value between 1-and 6 inclusive.

31           For a Service Connect Message, General Handoff Direction  
 32           Message, and a Universal Handoff Direction Message, the  
 33           base station shall set this field to the service reference  
 34           identifier to be used for the service instance corresponding  
 35           to this record.

36           RLP\_INFO\_INCL   – RLP information included indicator.

37           The mobile station shall set this field as follows:

38           The mobile station shall set this field to '1' if the  
 39           RLP\_BLOB field is included in this record; otherwise, it  
 40           shall set this field to '0'.

41           The base station shall set this field as follows:

The base station shall set this field to '1' if the RLP\_BLOB field is included in this record; otherwise, it shall set this field to '0'.

- RLP\_BLOB\_LEN** - RLP information block of bits length.

The mobile station shall set this field as follows:

If the RLP\_INFO\_INCL field is set to '0', the mobile station shall omit this field; otherwise, it shall include this field and set it as follows:

The mobile station shall set this field to the size of the RLP\_BLOB field in integer number of octets.

The base station shall set this field as follows:

If the RLP\_INFO\_INCL field is set to '0', the base station shall omit this field; otherwise, it shall include this field and set it as follows:

The base station shall set this field to the size of the RLP BLOB field in integer number of octets.

- RLP\_BLOB** - Radio Link Protocol block of bits.

The mobile station shall set this field as follows:

If the RLP\_INFO\_INCL field is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows:

For a *Status Response Message*, the mobile station shall set this field to the Radio Link Protocol block of bits for this service option connection.

For a *Service Request Message* or *Service Response Message*, the mobile station shall set this field to the proposed Radio Link Protocol block of bits for this service option connection, and shall add '0' bits to the end of the field as needed in order to make the length of this field equal to an integer number of octets.

The base station shall set this field as follows:

If the RLP\_INFO\_INCL field is set to '0', the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

The base station shall set this field to the Radio Link Protocol block of bits for this service option connection, and shall add '0' bits to the end of the field as needed in order to make the length of this field equal to an integer number of octets.

- QOS\_PARMS\_INCL** - Presence indicator for the QoS parameters.

The mobile station shall set this field as follows:

The mobile station shall set this field to '1', if QOS\_PARMS field is included in the record; otherwise the base station shall set this field to '0'.

The base station shall set this field as follows:

The base station shall set this field to '1', if QOS\_PARMS field is included in the record; otherwise, the base station shall set this field to '0'.

- QOS\_PARMS\_LEN** - Length of the block of QoS parameters.

The mobile station shall set this field as follows:

If QOS\_PARMS\_INCL is set to '1', the mobile station shall set this field to the combined length in octets, of the QOS\_PARMS field and the immediately following QOS\_RESERVED field; otherwise, the mobile station shall omit this field.

The base station shall set this field as follows:

If QOS\_PARMS\_INCL is set to ‘1’, the base station shall set this field to the combined length in octets, of the QOS\_PARMS field and the immediately following QOS\_RESERVED field; otherwise, the base station shall omit this field.

- QOS PARMs** - QoS parameters block.

The mobile station shall set this field as follows:

If QOS\_PARMS\_INCL is set to '1', the mobile station shall include this field in the record [as follows](#):

For a *Status Response Message*, the mobile station shall set this field to the set of QoS parameters configured for this service option connection.

For a Service Request Message or Service Response Message, the mobile station shall set this field and set it to the set of QoS parameters requested for the respective connection.

1                   The base station shall set this field as follows:

2                   If QOS\_PARMS\_INCL is set to ‘1’, the base station shall  
3                   include this field in the record and set it to the set of QoS  
4                   parameters requested or required for the respective  
5                   connection.

- 6           QOS\_RESERVED - Padding bits.

7                   The mobile station shall set this field as follows:

8                   If QOS\_PARMS\_INCL is set to ‘1’, the mobile station shall  
9                   include the minimum number of ‘0’ bits necessary to  
10                  ensure that the combined length of the QOS\_PARMS field  
11                  and of this field is an integer number of octets; otherwise,  
12                  the mobile station shall omit this field.

13                  The base station shall set this field as follows:

14                  If QOS\_PARMS\_INCL is set to ‘1’, the base station shall  
15                  include the minimum number of ‘0’ bits necessary to  
16                  ensure that the combined length of the QOS\_PARMS field  
17                  and of this field is an integer number of octets; otherwise,  
18                  the base station shall omit this field.

- 19           RESERVED - Reserved bits.

20                  The mobile station shall set this field as follows:

21                  The mobile station shall add reserved bits as needed in  
22                  order to make the length of the entire record equal to an  
23                  integer number of octets. The mobile station shall set  
24                  these bits to ‘0’.

25                  The base station shall set this field as follows:

26                  The base station shall add reserved bits as needed in order  
27                  to make the length of this record equal to an integer  
28                  number of octets. The base station shall set these bits to  
29                  ‘0’.

- 30           FCH\_CC\_INCL - Channel configuration for the Fundamental Channel included  
31                  indicator.

32                  The mobile station shall set this field as follows:

33                  The mobile station shall set this field to ‘1’, if Fundamental  
34                  Channel Configuration information is included in the  
35                  record; otherwise, the mobile station shall set this field to  
36                  ‘0’.

1           The base station shall set this field as follows:

2           The base station shall set this field to '1', if the channel  
3           configuration information for the Fundamental Channel is  
4           included in this Service Configuration Record; otherwise,  
5           the base station shall set this field to '0'.

- 6       FCH\_FRAME\_SIZE - Fundamental Channel frame size supported indicator.

7           The mobile station shall set this field as follows:

8           If FCH\_CC\_INCL field is set to '1', the mobile station shall  
9           include this field and set it as described below; otherwise,  
10          the mobile station shall omit this field.

11          For a *Status Response Message*, the mobile station shall  
12          set this field to '1', if the 5ms frame size is used in the  
13          Forward and Reverse Fundamental Channel, in addition to  
14          20ms frame, for the current service configuration;  
15          otherwise, the mobile station shall set this field to '0'.

16          For a *Service Request Message* or a *Service Response*  
17          *Message*, the mobile station shall set this field to '1' to  
18          propose that the 5 ms frame size in addition to the 20 ms  
19          frame size is used for the proposed service configuration;  
20          otherwise the mobile station shall set this field to '0'

21           The base station shall set this field as follows:

22          If the FCH\_CC\_INCL field is set to '0', the base station  
23          shall omit this field; otherwise, the base station shall  
24          include this field and set it as follows:

25          The base station shall set this field to '1' if the service  
26          configuration includes the use of 5 ms frame size in  
27          addition to 20ms frame size for the Forward and Reverse  
28          Fundamental Channel; otherwise, the base station shall  
29          set this field to '0'.

- 30       FOR\_FCH\_RC - Forward Fundamental Channel Radio Configuration.

31           The mobile station shall set this field as follows:

32          If FCH\_CC\_INCL field is set to '1', the mobile station shall  
33          include this field and set it as described below; otherwise,  
34          the mobile station shall omit this field.

35          For a *Status Response Message*, the mobile station shall  
36          set this field to the Forward Fundamental Channel Radio  
37          Configuration for the current service configuration.

38          For a *Service Request Message* or *Service Response*  
39          *Message*, the mobile station shall set this field to the  
40          Forward Fundamental Channel Radio Configuration for  
41          the proposed service configuration.

42          (see [2] Table 3.1.3.1-1)

1                   The base station shall set this field as follows:

2                   If the FCH\_CC\_INCL field is set to '0', the base station  
3                   shall omit this field; otherwise, the base station shall  
4                   include this field and set it as follows:

5                   For a *Service Request Message* or a *Service Response*  
6                   *Message*, the base station shall set this field to the  
7                   Forward Fundamental Channel Radio Configuration (see  
8                   Table 3.1.3.1-1 of [2]) in the proposed service  
9                   configuration.

10                  For a *Service Connect Message*, a *General Handoff*  
11                  *Direction Message*, or a *Universal Handoff Direction*  
12                  *Message*, the base station shall set this field to the actual  
13                  Forward Fundamental Channel Radio Configuration to be  
14                  used.

- 15                  REV\_FCH\_RC - Reverse Fundamental Channel Radio Configuration.

16                  The mobile station shall set this field as follows:

17                  If FCH\_CC\_INCL field is set to '1', the mobile station shall  
18                  include this field and set it as described below; otherwise,  
19                  the mobile station shall omit this field.

20                  For a *Status Response Message*, the mobile station shall  
21                  set field to the Reverse Fundamental Channel Radio  
22                  Configuration for the current service configuration.

23                  For a *Service Request Message* or a *Service Response*  
24                  *Message*, the mobile station shall set this field to the  
25                  Reverse Fundamental Channel Radio Configuration for the  
26                  proposed service configuration.

27                  (see [2] Table 2.1.3.1-1)

28                  The base station shall set this field as follows:

29                  If the FCH\_CC\_INCL field is set to '0', the base station  
30                  shall omit this field; otherwise, the base station shall  
31                  include this field and set it as follows:

32                  For a *Service Request Message* or a *Service Response*  
33                  *Message*, the base station shall set this field to the  
34                  Reverse Fundamental Channel Radio Configuration (see  
35                  Table 2.1.3.1-1 of [2]) in the proposed service  
36                  configuration.

37                  For a *Service Connect Message*, a *General Handoff*  
38                  *Direction Message*, or a *Universal Handoff Direction*  
39                  *Message*, the base station shall set this field to the actual  
40                  Reverse Fundamental Channel Radio Configuration to be  
41                  used.

- 42                  DCCH\_CC\_INCL - Channel configuration for the Dedicated Control Channel  
43                  included indicator.

1           The mobile station shall set this field as follows:

2           The mobile station shall set this field to ‘1’, if DCCH  
3           channel configuration information is included in this  
4           record; otherwise, the mobile station shall set this field to  
5           ‘0’.

6           The base station shall set this field as follows:

7           The base station shall set this field to ‘1’, if channel  
8           configuration information for the Dedicated Control  
9           Channel is included in this Service Configuration Record;  
10          otherwise, the base station shall set this field to ‘0’.

11         DCCH\_FRAME\_SIZE - Dedicated Control Channel frame size.

12          The mobile station shall set this field as follows:

13          If DCCH\_CC\_INCL field is set to ‘1’, the mobile station  
14          shall include this field and set it as described below;  
15          otherwise, the mobile station shall omit this field.

16          For a *Status Response Message*, the mobile station shall  
17          set this field to the frame size, as defined in Table 3.7.5.7-  
18          4, for the current service configuration.

19          For a *Service Request Message* or a *Service Response*  
20          *Message*, the mobile station shall set this field to the  
21          frame size, as defined in Table 3.7.5.7-4, for the proposed  
22          service configuration.

23          The base station shall set this field as follows:

24          If the DCCH\_CC\_INCL field is set to ‘0’, the base station  
25          shall omit this field; otherwise, the base station shall  
26          include this field and set it according to the Table 3.7.5.7-  
27          4 as follows:

28          For a *Service Connect Message*, a *General Handoff*  
29          *Direction Message*, or a *Universal Handoff Direction*  
30          *Message*, the base station shall set this field to the actual  
31          Dedicated Control Channel frame size(s) to be used in the  
32          service configuration.

33          For a *Service Request Message* or a *Service Response*  
34          *Message*, the base station shall set this field to the  
35          Dedicated Control Channel frame size for the proposed  
36          service configuration message.

**Table 3.7.5.7-4. DCCH Frame Size**

| <b>DCCH_FRAME_SIZE<br/>(binary)</b> | <b>Description</b>              |
|-------------------------------------|---------------------------------|
| 00                                  | Reserved                        |
| 01                                  | 20 ms frame size only           |
| 10                                  | 5 ms frame size only            |
| 11                                  | Both 5 ms and 20 ms frame sizes |

FOR\_DCCH\_RC - Forward Dedicated Control Channel Radio Configuration.

The mobile station shall set this field as follows:

If DCCH\_CC\_INCL field is set to ‘1’, the mobile station shall include this field and set it as described below; otherwise, the mobile station shall omit this field.

For a *Status Response Message*, the mobile station shall set this field to the Forward Dedicated Control Channel Radio Configuration for the current service configuration.

For a *Service Request Message* or a *Service Response Message*, the mobile station shall set this field to the forward Dedicated Control Channel Radio Configuration (see [2] Table 3.1.3.1-1) for the proposed service configuration.

The base station shall set this field as follows:

If the DCCH\_CC\_INCL field is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

For a *Service Connect Message*, a *General Handoff Direction Message*, or a *Universal Handoff Direction Message*, the base station shall set this field to the actual Forward Dedicated Control Channel Radio Configuration to be used (see Table 3.1.3.1-1 of [2]).

For a *Service Request Message* or a *Service Response Message*, the base station shall set this field to the Forward Dedicated Control Channel Radio Configuration for the proposed service configuration.

REV\_DCCH\_RC - Reverse Dedicated Control Channel Radio Configuration.

The mobile station shall set this field as follows:

If DCCH\_CC\_INCL field is set to ‘1’, the mobile station shall include this field and set it as described below; otherwise, the mobile station shall omit this field.

1           For a *Status Response Message*, the mobile station shall  
 2           set this field to the Reverse Dedicated Control Channel  
 3           Radio Configuration (see Table 2.1.3.1-1 of [2]) for the  
 4           current service configuration.

5           For a *Service Request Message* or a *Service Response*  
 6           *Message*, the mobile station shall set this field to the  
 7           Reverse Dedicated Control Channel Radio Configuration  
 8           for the proposed service configuration.

9           The base station shall set this field as follows:

10          If the DCCH\_CC\_INCL field is set to ‘0’, the base station  
  11          shall omit this field; otherwise, the base station shall  
  12          include this field and set it as follows:

13          For a *Service Connect Message*, a *General Handoff*  
  14          *Direction Message*, or a *Universal Handoff Direction*  
  15          *Message*, the base station shall set this field to the actual  
  16          Reverse Dedicated Control Channel Radio Configuration to  
  17          be used (see Table 2.1.3.1-1 of [2]).

18          For a *Service Request Message* or a *Service Response*  
  19          *Message*, the base station shall set this field to the reverse  
  20          Dedicated Control Channel Radio Configuration for the  
  21          proposed service configuration.

22          FOR\_SCH-

23            \_CC\_INCL - Channel configuration for the Forward Supplemental Channel  
 24            included indicator.

25           The mobile station shall set this field as follows:

26          The mobile station shall set this field to ‘1’, if the Forward  
  27          Supplemental Channel Configuration information is  
  28          included; otherwise, the mobile station shall set this field  
  29          to ‘0’.

30           The base station shall set this field as follows:

31          The base station shall set this field to ‘1’, if the channel  
  32          configuration information for the forward Supplemental  
  33          Channel is included in this Service Configuration Record;  
  34          otherwise, the base station shall set this field to ‘0’.

35          NUM\_FOR\_SCH

35           - Number of Forward Supplemental Channels.

36           The mobile station shall set this field as follows:

37          If FOR\_SCH\_CC\_INCL field is set to ‘1’, the mobile station  
  38          shall include this field and set it as describe below;  
  39          otherwise, the mobile station shall omit this field.

1                   For a *Status Response Message*, the mobile station shall  
 2                   set this field to the number of Forward Supplemental  
 3                   Channels for the current service configuration and include  
 4                   one occurrence of the following three-field SCH record for  
 5                   each Supplemental Channel Configuration.

6                   For a *Service Request Message* or a *Service Response*  
 7                   *Message*, the mobile station shall set this field to the  
 8                   number of Forward Supplemental Channels for the  
 9                   proposed service configuration and include one occurrence  
 10                  of the following three-field SCH record for each  
 11                  Supplemental Channel Configuration.

12                  The base station shall set this field as follows:

13                  If the FOR\_SCH\_CC\_INCL field is set to '0', the base  
 14                  station shall omit this field; otherwise, the base station  
 15                  shall set this field to the number of Forward Supplemental  
 16                  Channels associated with this service configuration.

17                  If the NUM\_FOR\_SCH field is present and is set to any value other than '00', the base  
 18                  station shall include one occurrence of the following three-field record for each Forward  
 19                  Supplemental Channel included in this record:

20                  FOR\_SCH\_ID - Forward Supplemental Channel Identification

21                  The mobile station shall set this field as follows:

22                  The mobile station shall set this field to the identification  
 23                  of the Supplemental Channel included in this Forward  
 24                  Supplemental Channel Configuration record.

25                  The mobile station shall set this field to the Supplemental  
 26                  Channel identifier, shown in Table 3.7.5.7-5.

27                  **Table 3.7.5.7-5. SCH Identifier**

| <b>FOR_SCH_ID</b><br><b>REV_SCH_ID</b><br><b>(binary)</b> | <b>Description</b>     |
|-----------------------------------------------------------|------------------------|
| 00                                                        | Supplemental Channel 0 |
| 01                                                        | Supplemental Channel 1 |
| 10-11                                                     | Reserved               |

28                  The base station shall set this field as follows:

29                  The base station shall set this field to the identifier of the  
 30                  Forward Supplemental Channel pertaining to this record.

31                  The base station shall set this field to the Supplemental  
 32                  Channel identifier, shown in Table 3.7.5.7-5.

34                  FOR\_SCH\_MUX - Forward Supplemental Channel Multiplex Option.

1           The mobile station shall set this field as follows:

2           The mobile station shall set this field to the Multiplex  
 3           Option associated with the maximum data rate for this  
 4           Forward SCH-Supplemental Channel (see [3]).

5           The base station shall set this field as follows:

6           The base station shall set this field to the Multiplex Option  
 7           associated with the maximum data rate for this Forward  
 8           Supplemental Channel (see [3]).

9           SCH\_CC-

10          \_Type-specific field - Supplemental Channel Configuration Information.

11           The mobile station shall set this field as follows:

12           The mobile station shall set this field to the subfields of  
 13           the Channel Configuration record defined in 3.7.5.7.1, for  
 14           this Forward Supplemental Channel included in the  
 15           service configuration.

16           The base station shall set this field as follows:

17           The base station shall set this field as defined in 3.7.5.7.1  
 18           for this Forward Supplemental Channel.

19          REV\_SCH\_CC\_INCL

20          - Channel configuration for the Reverse Supplemental Channel  
               included indicator.

21           The mobile station shall set this field as follows:

22           The mobile station shall set this field to '1', if the Reverse  
 23           Supplemental Channel Configuration information is  
 24           included; otherwise, the mobile station shall set this field  
 25           to '0'.

26           The base station shall set this field as follows:

27           The base station shall set this field to '1' if the channel  
 28           configuration information for the Reverse Supplemental  
 29           Channel is included in this service configuration record;  
 30           otherwise, the base station shall set this field to '0'.

31          NUM\_REV\_SCH

32          - Number of Reverse Supplemental Channels.

33           The mobile station shall set this field as follows:

34           If REV\_SCH\_CC\_INCL field is set to '1', the mobile station  
 35           shall include this field and set it as described below;  
               otherwise, the mobile station shall omit this field.

1                   For a *Status Response Message*, the mobile station shall  
 2                   set this field to the number of Reverse Supplemental  
 3                   Channels for the current service configuration and include  
 4                   one occurrence of the following three-field record for each  
 5                   reverse Supplemental Channel Configuration.

6                   For a *Service Request Message* or a *Service Response*  
 7                   Message, the mobile station shall set this field to the  
 8                   number of Reverse Supplemental Channels for the  
 9                   proposed service configuration and include one occurrence  
 10                  of the following three-field record for each reverse  
 11                  Supplemental Channel Configuration.

12                  The base station shall set this field as follows:

13                  If the REV\_SCH\_CC\_INCL field is set to '0', the base  
 14                  station shall omit this field; otherwise, the base station  
 15                  shall set this field to the number of Reverse Supplemental  
 16                  Channels associated with this service configuration.

17                  If the NUM\_REV\_SCH field is present and is set to any value other than '00', the base  
 18                  station shall include one occurrence of the following three-field record for each Reverse  
 19                  Supplemental Channel included in this record:

20                  REV\_SCH\_ID - Reverse Supplemental Channel Identification

21                  The mobile station shall set this field as follows:

22                  The mobile station shall set this field to the identifier of  
 23                  the Supplemental Channel included in this Reverse  
 24                  Supplemental Channel Configuration record.

25                  The mobile station shall set this field to the Supplemental  
 26                  Channel identifier, shown in Table 3.7.5.7-5.

27                  The base station shall set this field as follows:

28                  The base station shall set this field to the identifier of the  
 29                  Reverse Supplemental Channel pertaining to this record.

30                  The base station shall set this field to the Supplemental  
 31                  Channel identifier, shown in Table 3.7.5.7-5.

32                  REV\_SCH\_MUX - Reverse Supplemental Channel Multiplex Option

33                  The mobile station shall set this field as follows:

34                  The mobile station shall set this field to the Multiplex  
 35                  Option associated with the maximum data rate for this  
 36                  Reverse SCH (see [3]).

37                  The base station shall set this field as follows:

1                   The base station shall set this field to the Multiplex Option  
2                   associated with the maximum data rate for this Reverse  
3                   Supplemental Channel (see [3]).

4                   **SCH\_CC-**

5                   \_Type-specific field    -    Supplemental Channel Configuration Information.

6                   The mobile station shall set this field as follows:

7                   The mobile station shall set this field to the subfields of  
8                   the Channel Configuration record defined in 3.7.5.7.1, for  
9                   this Reverse Supplemental Channel included in the service  
10                  configuration.

11                  The base station shall set this field as follows:

12                  The base station shall set this field as defined in 3.7.5.7.1  
13                  for this Reverse Supplemental Channel.

14                  **RESERVED**    -    Reserved bits.

15                  The mobile station shall set this field as follows:

16                  The mobile station shall add reserved bits as needed in  
17                  order to make the length of the entire information record  
18                  equal to an integer number of octets. The mobile station  
19                  shall set these bits to '0'.

20                  The base station shall set this field as follows:

21                  The base station shall add reserved bits as needed in order  
22                  to make the length of the entire message equal to an  
23                  integer number of octets. The base station shall set these  
24                  bits to '0'.

## 1    3.7.5.7.1 Channel Configuration for the Supplemental Channel

2    The channel configuration information for the Supplemental Channel consists of the  
 3    following subfields:

4

| <b>Subfields</b> | <b>Length (bits)</b> |
|------------------|----------------------|
| SCH_REC_LEN      | 4                    |
| SCH_RC           | 5                    |
| CODING           | 1                    |
| FRAME_40_USED    | 1                    |
| FRAME_80_USED    | 1                    |
| MAX_RATE         | 4                    |

- 5
- 6    SCH\_REC\_LEN    -    Supplemental Channel channel configuration record length.  
 7    The mobile station or base station shall set this field to the  
 8    number of octets included in this Supplemental Channel  
 9    channel configuration record including this SCH\_REC\_LEN  
 10   field.
- 11   SCH\_RC    -    Supplemental Channel Radio Configuration.  
 12   The mobile station or base station shall set this field to the  
 13   Radio Configuration for this Supplemental Channel. Radio  
 14   Configurations are defined Table 3.1.3.1-1 of [2] for the  
 15   Forward Supplemental Channel and Table 2.1.3.1-1 of [2] for  
 16   the Reverse Supplemental Channel.
- 17   CODING    -    Coding type.  
 18   The mobile station or base station shall set this field to '1' if  
 19   the mobile station or the base station is to use Convolutional  
 20   Coding when the number of channel bits per frame is less  
 21   than 360 and Turbo Coding when the number of channel bits  
 22   per frame is equal to or greater than 360. The mobile station  
 23   or base station shall set this field to '0' if the mobile station or  
 24   the base station uses Convolution Coding for all block sizes.
- 25   FRAME\_40\_USED    -    40ms frame used indicator  
 26   The mobile station or base station shall set this field to '1' if  
 27   40ms frame is used; otherwise, the mobile station or base  
 28   station shall set this field to '0'.  
 29   If a f-dtch logical channel corresponding to the same sr\_id is  
 30   mapped to both forward Supplemental Channels 0 and 1,  
 31   then the mobile station or base station shall specify the same  
 32   frame length for both forward Supplemental Channels 0 and  
 33   1.

1                   If a r-dtch logical channel corresponding to the same sr\_id is  
 2                   mapped to both reverse Supplemental Channels 0 and 1, then  
 3                   the mobile station or base station shall specify the same frame  
 4                   length for both forward Supplemental Channels 0 and 1.

5                   The base station shall not set both FRAME\_40\_USED and  
 6                   FRAME\_80\_USED fields set to '1'.

7  
 8                 **FRAME\_80\_USED**   - 80ms frame used indicator.

9  
 10                  The mobile station or base station shall set this field to '1' if  
 11                  80ms frame is to be used; otherwise, the mobile station or  
 12                  base station shall set this field to '0'.

13                  If a f-dtch logical channel corresponding to the same sr\_id is  
 14                  mapped to both forward Supplemental Channels 0 and 1,  
 15                  then the mobile station or base station shall specify the same  
 16                  frame length for both forward Supplemental Channels 0 and 1.

17                  If a r-dtch logical channel corresponding to the same sr\_id is  
 18                  mapped to both reverse Supplemental Channels 0 and 1, then  
 19                  the mobile station or base station shall specify the same frame  
 20                  length for both reverse Supplemental Channels 0 and 1.

21                  Then the base station shall not set both FRAME\_40\_USED  
 22                  and FRAME\_80\_USED fields set to '1'.

23                 **MAX\_RATE**   - Maximum supplemental channel rate

24                  The mobile station or base station shall set this field according  
 25                  to Table 2.7.4.27.3-2 to indicate the maximum forward or  
 26                  reverse supplemental channel data rate supported.

### 3.7.5.8 Called Party Subaddress

<sup>2</sup> This information record identifies the called party subaddress.

| Type-Specific Field | Length (bits) |
|---------------------|---------------|
| EXTENSION_BIT       | 1             |
| SUBADDRESS_TYPE     | 3             |
| ODD/EVEN_INDICATOR  | 1             |
| RESERVED            | 3             |

Zero or more occurrences of the following field:

CHARI 8

- |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EXTENSION_BIT      | - The extension bit.<br>The base station shall set this field to '1'.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| SUBADDRESS_TYPE    | - Type of subaddress.<br>The base station shall set this field to the SUBADDRESS_TYPE value shown in Table 2.7.4.19-1 corresponding to the type of the subaddress, as defined in [7], Section 4.5.8.                                                                                                                                                                                                                                                                                                                                                                                                                               |
| ODD/EVEN_INDICATOR | - The indicator of odd/even bits.<br>The base station shall set this field to the ODD/EVEN_INDICATOR value shown in Table 2.7.4.19-2 corresponding to the indicator of even/odd bits, as defined in [7], Section 4.5.8. It is only used when the type of subaddress is "User specified" and the coding is BCD.                                                                                                                                                                                                                                                                                                                     |
| RESERVED           | - Reserved bits.<br>The base station shall set this field to '000'.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| CHAR1              | - Character.<br>The base station shall include one occurrence of this field for each character in the called party subaddress.<br>When the SUBADDRESS_TYPE field is equal to '000', the NSAP address shall be encoded using the preferred binary encoding specified in <a href="#">CCITT Recommendation X.213 or ISO 8348 AD2 [35]</a> .<br>When the SUBADDRESS_TYPE field is set to '010', user-specified subaddress field is encoded according to the user specification, subject to a maximum length of 20 octets. When interworking with <a href="#">CCITT Recommendation X.25[36]</a> networks, BCD coding should be applied. |

### 3.7.5.9 Calling Party Subaddress

This information record identifies the calling party subaddress.

| Type-Specific Field | Length (bits) |
|---------------------|---------------|
| EXTENSION_BIT       | 1             |
| SUBADDRESS_TYPE     | 3             |
| ODD/EVEN_INDICATOR  | 1             |
| RESERVED            | 3             |

Zero or more occurrences of the following field:

CHARi 8

- |  |                    |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|--|--------------------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | EXTENSION_BIT      | - | The extension bit.<br>The base station shall set this field to '1'.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|  | SUBADDRESS_TYPE    | - | Type of subaddress.<br>The base station shall set this field to the SUBADDRESS_TYPE value shown in Table 2.7.4.19-1 corresponding to the type of the subaddress, as defined in [7], Section 4.5.10.                                                                                                                                                                                                                                                                                                                                                                                                                               |
|  | ODD/EVEN INDICATOR | - | The indicator of odd/even bits.<br>The base station shall set this field to the ODD/EVEN_INDICATOR value shown in Table 2.7.4.19-2 corresponding to the indicator of even/odd bits, as defined in [7], Section 4.5.10. It is only used when the type of subaddress is "User specified" and the coding is BCD.                                                                                                                                                                                                                                                                                                                     |
|  | RESERVED           | - | Reserved bits.<br>The base station shall set this field to '000'.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|  | CHARi              | - | Character.<br>The base station shall include one occurrence of this field for each character in the calling party subaddress.<br>When the SUBADDRESS_TYPE field is equal to '000', the NSAP address shall be encoded using the preferred binary encoding specified in <a href="#">CCITT Recommendation X.213 or ISO 8348 AD2</a> [35].<br>When the SUBADDRESS_TYPE field is set to '010', user-specified subaddress field is encoded according to the user specification, subject to a maximum length of 20 octets. When interworking with <a href="#">CCITT Recommendation X.25</a> [36] networks, BCD coding should be applied. |

## 1    3.7.5.10 Connected Subaddress

2    This information record identifies the subaddress of the responding party.

3

| Type-Specific Field | Length (bits) |
|---------------------|---------------|
| EXTENSION_BIT       | 1             |
| SUBADDRESS_TYPE     | 3             |
| ODD/EVEN_INDICATOR  | 1             |
| RESERVED            | 3             |

Zero or more occurrences of the following field:

|       |   |
|-------|---|
| CHARi | 8 |
|-------|---|

4

- 5    EXTENSION\_BIT    -    The extension bit.  
                             The base station shall set this field to '1'.
- 6    SUBADDRESS\_TYPE    -    Type of subaddress.  
                             The base station shall set this field to the  
                             SUBADDRESS\_TYPE value shown in Table 2.7.4.19-1  
                             corresponding to the type of the subaddress, as defined in [7],  
                             Section 4.5.14.
- 7    ODD/EVEN\_INDICATOR    -    The indicator of odd/even bits.  
                             The base station shall set this field to the  
                             ODD/EVEN\_INDICATOR value shown in Table 2.7.4.19-2  
                             corresponding to the indicator of even/odd bits, as defined in  
                             [7], Section 4.5.14. It is only used when the type of  
                             subaddress is "User specified" and the coding is BCD.
- 8    RESERVED    -    Reserved bits.  
                             The base station shall set this field to '000'.
- 9    CHARi    -    Character.  
                             The base station shall include one occurrence of this field for  
                             each character in the connected subaddress.  
                             When the SUBADDRESS\_TYPE field is equal to '000', the  
                             NSAP address shall be encoded using the preferred binary  
                             encoding specified in [CCITT Recommendation X.213 or ISO 8348-AD2](#) [35].
- 10   |    CHARi    -    When the SUBADDRESS\_TYPE field is set to '010', user-  
                             specified subaddress field is encoded according to the user  
                             specification, subject to a maximum length of 20 octets.  
                             When interworking with [CCITT Recommendation X.25](#) [36]  
                             networks, BCD coding should be applied.

## 1    3.7.5.11 Redirecting Number

2    This information record identifies the Redirecting Number.

3

| Type-Specific Field | Length (bits) |
|---------------------|---------------|
| EXTENSION_BIT_1     | 1             |
| NUMBER_TYPE         | 3             |
| NUMBER_PLAN         | 4             |
| EXTENSION_BIT_2     | 0 or 1        |
| PI                  | 0 or 2        |
| RESERVED            | 0 or 3        |
| SI                  | 0 or 2        |
| EXTENSION_BIT_3     | 0 or 1        |
| RESERVED            | 0 or 3        |
| REDIRECTION_REASON  | 0 or 4        |

Zero or more occurrences of the following field:

|       |   |
|-------|---|
| CHARi | 8 |
|-------|---|

4

5    EXTENSION\_BIT\_1    -    The extension bit.

6                         If the PI and SI are included in this record, the base station  
7                         shall set this field to '0'; otherwise, the base station shall set  
8                         this field to '1'.

9    NUMBER\_TYPE    -    Type of number.

10                       The base station shall set this field to the NUMBER\_TYPE  
11                       value shown in Table 2.7.1.3.2.4-2 corresponding to the type  
12                       of the redirecting number, as defined in [ANSI T1.625 §6.1.3.7](#)  
13                       [34].

14    NUMBER\_PLAN    -    Numbering plan.

15                       The base station shall set this field to the NUMBER\_PLAN  
16                       value shown in Table 2.7.1.3.2.4-3 corresponding to the  
17                       numbering plan used for the redirecting number, as defined in  
18                       [ANSI T1.625 §6.1.3.7](#)[34].

19    EXTENSION\_BIT\_2    -    The extension bit.

20                       If the EXTENSION\_BIT\_1 is set to '0' and  
21                       REDIRECTION\_REASON is included in this record, the base  
22                       station shall set this field to '0'. If the EXTENSION\_BIT\_1 is  
23                       set to '0' and REDIRECTION\_REASON is not included in this  
24                       record, the base station shall set this field to '1'. If the  
25                       EXTENSION\_BIT\_1 is set to '1', the base station shall omit  
26                       this field.

|    |                    |   |                                                                              |
|----|--------------------|---|------------------------------------------------------------------------------|
| 1  | PI                 | - | Presentation indicator.                                                      |
| 2  |                    |   | This field indicates whether or not the redirecting number                   |
| 3  |                    |   | should be displayed.                                                         |
| 4  |                    |   | if the EXTENSION_BIT_1 is set to '0', the base station shall set             |
| 5  |                    |   | this field to the PI value shown in Table 2.7.4.4-1                          |
| 6  |                    |   | corresponding to the presentation indicator, as defined in                   |
| 7  |                    |   | <a href="#">ANSI T1.625 §6.1.3.7[34]</a> ; otherwise, the base station shall |
| 8  |                    |   | omit this field.                                                             |
| 9  | RESERVED           | - | Reserved bits.                                                               |
| 10 |                    |   | If the EXTENSION_BIT_1 is set to '0', the base station shall set             |
| 11 |                    |   | this field to '000'; otherwise, the base station shall omit this             |
| 12 |                    |   | field.                                                                       |
| 13 | SI                 | - | Screening indicator.                                                         |
| 14 |                    |   | This field indicates how the redirecting number was screened.                |
| 15 |                    |   | If the EXTENSION_BIT_1 is set to '0', the base station shall set             |
| 16 |                    |   | this field to the SI value shown in Table 2.7.4.4-2                          |
| 17 |                    |   | corresponding to the screening indicator value, as defined in                |
| 18 |                    |   | <a href="#">ANSI T1.625 6.1.3.7[34]</a> ; otherwise, the base station shall  |
| 19 |                    |   | omit this field.                                                             |
| 20 | EXTENSION_BIT_3    | - | The extension bit.                                                           |
| 21 |                    |   | If the EXTENSION_BIT_2 is set to '0', the base station shall set             |
| 22 |                    |   | this field to '1'; otherwise, the base station shall omit this               |
| 23 |                    |   | field.                                                                       |
| 24 | RESERVED           | - | Reserved bits.                                                               |
| 25 |                    |   | If the EXTENSION_BIT_2 is set to '0', the base station shall set             |
| 26 |                    |   | this field to '000'; otherwise, the base station shall omit this             |
| 27 |                    |   | field.                                                                       |
| 28 | REDIRECTION_REASON | - | The reason for redirection.                                                  |
| 29 |                    |   | If the EXTENSION_BIT_2 is set to '0', the base station shall set             |
| 30 |                    |   | this field to the REDIRECTION_REASON value shown in Table                    |
| 31 |                    |   | 3.7.5.5.11-1 corresponding to the redirection reason, as                     |
| 32 |                    |   | defined in <a href="#">ANSI T1.625 6.1.3.7 [34]</a> ; otherwise, the base    |
| 33 |                    |   | station shall omit this field.                                               |
| 34 |                    |   |                                                                              |

**Table 3.7.5.11-1. Redirection Reason**

| <b>Description</b>                                           | <b>REDIRECTION-REASON<br/>(binary)</b> |
|--------------------------------------------------------------|----------------------------------------|
| Unknown                                                      | 0000                                   |
| Call forwarding busy or called DTE busy                      | 0001                                   |
| Call forwarding no reply (circuit-mode only)                 | 0010                                   |
| Called DTE out of order (packet-mode only)                   | 1001                                   |
| Call forwarding by the called DTE (packet-mode only)         | 1010                                   |
| Call forwarding unconditional or Systematic call redirection | 1111                                   |
| Reserved                                                     | others                                 |

2

3

CHARi - Character.

4

5

6

7

8

The base stations shall include one occurrence of this field for each character in the Redirecting Number. The base station shall set each occurrence of this field to the ASCII representation corresponding to the character, as specified in [9], with the most significant bit set to '0'.

## 1    3.7.5.12 Redirecting Subaddress

2    This information record identifies the subaddress of the responding party.

3

| Type-Specific Field | Length (bits) |
|---------------------|---------------|
| EXTENSION_BIT       | 1             |
| SUBADDRESS_TYPE     | 3             |
| ODD/EVEN_INDICATOR  | 1             |
| RESERVED            | 3             |

Zero or more occurrences of the following field:

|       |   |
|-------|---|
| CHARi | 8 |
|-------|---|

4

- 5    EXTENSION\_BIT    -    The extension bit.  
                             The base station shall set this field to '1'.
- 6    SUBADDRESS\_TYPE    -    Type of subaddress.  
                             The base station shall set this field to the  
                             SUBADDRESS\_TYPE value shown in Table 2.7.4.19-1  
                             corresponding to the type of the subaddress, as defined in  
[ANSI T1.625 §6.1.3.8\[34\]](#).
- 7    ODD/EVEN\_INDICATOR    -    The indicator of odd /even bits.  
                             The base station shall set this field to the  
                             ODD/EVEN\_INDICATOR value shown in Table 2.7.4.19-2  
                             corresponding to the indicator of even/odd bits, as defined in  
[ANSI T1.625 §6.1.3.8\[34\]](#). It is only used when the type of  
                             subaddress is "User specified" and the coding is BCD.
- 8    RESERVED    -    Reserved bits.  
                             The base station shall set this field to '000'.
- 9    CHARi    -    Character.  
                             The base station shall include one occurrence of this field for  
                             each character in the redirecting subaddress.  
                             When the SUBADDRESS\_TYPE field is equal to '000', the  
                             NSAP address shall be encoded using the preferred binary  
                             encoding specified in ~~CCITT Recommendation X.213 or ISO~~  
[8348 AD2\[35\]](#).
- 10      |  
 11      |  
 12      |  
 13      |  
 14      |  
 15      |  
 16      |  
 17      |  
 18      |  
 19      |  
 20      |  
 21      |  
 22      |  
 23      |  
 24      |  
 25      |  
 26      |  
 27      |  
 28      |  
 29      |  
 30      |  
 31      |
- When the SUBADDRESS\_TYPE field is set to '010', user-specified subaddress field is encoded according to the user specification, subject to a maximum length of 20 octets. When interworking with ~~CCITT Recommendation X.25[36]~~ networks, BCD coding should be applied.

## 1    3.7.5.13 Meter Pulses

2    This information record identifies the number of meter pulses and frequency of the alert  
 3    tone.

4

| Type-Specific Field | Length (bits) |
|---------------------|---------------|
| PULSE_FREQUENCY     | 11            |
| PULSE_ON_TIME       | 8             |
| PULSE_OFF_TIME      | 8             |
| PULSE_COUNT         | 4             |
| RESERVED            | 1             |

5

- 6    PULSE\_FREQUENCY    -    Pulse frequency.  
 7                         The base station shall set this field to the frequency of the  
 8                         alert signals in units of 10 Hz or to zero to indicate that line  
 9                         polarity control is to be used. If this field is set to zero, the  
 10                        PULSE\_ON\_TIME and PULSE\_OFF\_TIME shall be the period of  
 11                        line polarity reversal and normal line polarity, respectively.
- 12    PULSE\_ON\_TIME    -    Pulse on time.  
 13                        The base station shall set this field to the period of the meter  
 14                        pulses in units of 5 ms.
- 15    PULSE\_OFF\_TIME    -    Pulse off time.  
 16                        The base station shall set this field to the period of the inter-  
 17                        pulse spacing in units of 5 ms.
- 18    PULSE\_COUNT    -    Pulse count.  
 19                        The base station shall set this field to the number of meter  
 20                        pulses.
- 21    RESERVED    -    Reserved bits.  
 22                        The base station shall set this field to '0'.

## 1    3.7.5.14 Parametric Alerting

2    This information record allows the network to convey information to a user by means of  
 3    programmable alerting signals.

4

| Type-Specific Field | Length (bits) |
|---------------------|---------------|
| CADENCE_COUNT       | 8             |
| NUM_GROUPS          | 4             |

NUM\_GROUPS occurrences of the following record:

|           |    |
|-----------|----|
| AMPLITUDE | 8  |
| FREQ_1    | 10 |
| FREQ_2    | 10 |
| ON_TIME   | 8  |
| OFF_TIME  | 8  |
| REPEAT    | 4  |
| DELAY     | 8  |

|              |   |
|--------------|---|
| CADENCE_TYPE | 2 |
| RESERVED     | 2 |

5

6    CADENCE\_COUNT    -    Cadence count.

7    The base station shall set this field to the number of times the  
 8    cadence of tone groups will be generated between 0x01 and  
 9    0xFE. The base station shall set this field to 0x00 to indicate  
 10   that the mobile station should end alert tone generation. The  
 11   base station shall set this field to 0xFF to indicate that the  
 12   cadence will repeat indefinitely.

13    NUM\_GROUPS    -    Number of groups.

14    The base station shall set this field to the number of groups.

15

16    AMPLITUDE    -    Amplitude.

17    The base station shall set this field to the amplitude level of  
 18    the tone group in units of -1 dBm.

19    FREQ\_1    -    Tone frequency 1.

20    The base station shall set this field to the first frequency of  
 21    the tone group in units of 5 Hz.

22    FREQ\_2    -    Tone frequency 2.

The base station shall set this field to the second frequency of the tone group in units of 5 Hz. Setting this field to zero creates a single frequency tone.

- |          |                                                                                                                                                                                                                     |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ON_TIME  | - On time.<br><br>The base station shall set this field to the duration of the tone group in units of 50 ms.                                                                                                        |
| OFF_TIME | - Off time.<br><br>The base station shall set this field to the duration of the spacing between tones in units of 50 ms.                                                                                            |
| REPEAT   | - Repeat.<br><br>The base station shall set this field to the number of times the tone group should repeat. The base station shall set this field to 0xFF to indicate that the tone group will repeat indefinitely. |
| DELAY    | - Delay.<br><br>The base station shall set this field to the length of time before the next tone group begins in units of 50 ms.                                                                                    |
| ENC_TYPE | - Parametric Alerting cadence type.<br><br>The base station shall set this field to indicate that the alert should be conveyed to the user as specified in Table 3.7.5.14.                                          |

**Table 3.7.5.14. Cadence Types**

| <b>CADENCE_TYPE</b> | <b>Meaning</b>                                                     |
|---------------------|--------------------------------------------------------------------|
| 00                  | Not specified                                                      |
| 01                  | Acoustic earpiece or similar device                                |
| 10                  | Device other than acoustic earpiece or similar device (Eg. Ringer) |
| 11                  | Reserved                                                           |

- RESERVED** - Reserved bits.  
The base station shall set this field to '00'.

## 1    3.7.5.15 Line Control

2    This information record allows the network to convey line control information.

3

| Type-Specific Field | Length (bits)     |
|---------------------|-------------------|
| POLARITY_INCLUDED   | 1                 |
| TOGGLE_MODE         | 0 or 1            |
| REVERSE_POLARITY    | 0 or 1            |
| POWER_DENIAL_TIME   | 8                 |
| RESERVED            | 0 - 7 (as needed) |

4

5    POLARITY\_INCLUDED    -    Polarity parameter included.

6                          If the mobile station is to change the line polarity, the base  
7                          station shall set this field to '1'; otherwise, the base station  
8                          shall set this field to '0'.9                          TOGGLE\_MODE    -    If POLARITY\_INCLUDED is set to '1', the base station shall  
10                         include this field and set it to '1' to toggle the line polarity or  
11                         to '0' to set the polarity to the absolute value indicated in the  
12                         REVERSE\_POLARITY field.

13                         REVERSE\_POLARITY    -    Reverse polarity.

14                         If POLARITY\_INCLUDED is set to '1' and TOGGLE\_MODE is  
15                         equal to '0', the base station shall include this field and set it  
16                         to '1' to reverse the tip and ring polarity or to '0' to use normal  
17                         polarity. If POLARITY\_INCLUDED is set to '1' and  
18                         TOGGLE\_MODE is set to '1', the base station shall include  
19                         this field and set it to '0'; otherwise, the base station shall  
20                         omit this field.

21                         POWER\_DENIAL\_TIME    -    Power denial timeout.

22                         The base station shall include this field and set it to the  
23                         duration of the power denial in increments of 5 ms.

24                         RESERVED    -    Reserved bits.

25                         The base station shall add reserved bits as needed in order to  
26                         make the length of the entire message equal to an integer  
27                         number of octets. The base station shall set these bits to '0'.

## 1    3.7.5.16 Extended Display

2    This information record allows the network to supply supplementary service display  
 3    information that may be displayed by the mobile station.

4

| Type-Specific Field | Length (bits) |
|---------------------|---------------|
| EXT_DISPLAY_IND     | 1             |
| DISPLAY_TYPE        | 7             |

One or more occurrences of the following record:

|             |   |
|-------------|---|
| DISPLAY_TAG | 8 |
| DISPLAY_LEN | 8 |

DISPLAY\_LEN occurrences of the following field if the  
 DISPLAY\_TAG field is not equal to '10000000' or  
 '10000001':

|       |   |
|-------|---|
| CHARi | 8 |
|-------|---|

5

- 6    EXT\_DISPLAY\_IND    - The indicator of Extended Display Information record.  
 7                         The base station shall set this field to '1'.  
 8    DISPLAY\_TYPE    - The type of display.  
 9                         The base station shall set this field to the DISPLAY\_TYPE  
 10                        value shown in Table 3.7.5.16-1 corresponding to the type of  
 11                        display, as defined in [8] Annex D.

12

13                        **Table 3.7.5.16-1. Display Type**

| Description                                 | DISPLAY_TYPE<br>(binary) |
|---------------------------------------------|--------------------------|
| Normal                                      | 0000000                  |
| All other DISPLAY_TYPE values are reserved. |                          |

14

- 15    DISPLAY\_TAG    - The indicator of the display information.  
 16                         There are three types of display tags: mandatory control tags  
 17                         (Blank and Skip), display text tags, and optional control tags,  
 18                         see [8] Annex D.  
 19                         The base station shall set this field to the DISPLAY\_TAG value  
 20                         shown in Table 3.7.5.16-2 corresponding to the type of  
 21                         information contained in the following CHARi field, as defined  
 22                         in [8] Annex D.

23

**Table 3.7.5.16-2. Mandatory Control Tags and Display Text Tags**

| <b>Description</b>       | <b>DISPLAY_TAG<br/>(binary)</b> |
|--------------------------|---------------------------------|
| Blank                    | 10000000                        |
| Skip                     | 10000001                        |
| Continuation             | 10000010                        |
| Called Address           | 10000011                        |
| Cause                    | 10000100                        |
| Progress Indicator       | 10000101                        |
| Notification Indicator   | 10000110                        |
| Prompt                   | 10000111                        |
| Accumulated Digits       | 10001000                        |
| Status                   | 10001001                        |
| Inband                   | 10001010                        |
| Calling Address          | 10001011                        |
| Reason                   | 10001100                        |
| Calling Party Name       | 10001101                        |
| Called Party Name        | 10001110                        |
| Original Called Name     | 10001111                        |
| Redirecting Name         | 10010000                        |
| Connected Name           | 10010001                        |
| Originating Restrictions | 10010010                        |
| Date & Time of Day       | 10010011                        |
| Call Appearance ID       | 10010100                        |
| Feature Address          | 10010101                        |
| Redirection Name         | 10010110                        |
| Redirection Number       | 10010111                        |
| Redirecting Number       | 10011000                        |
| Original Called Number   | 10011001                        |
| Connected Number         | 10011010                        |
| Text (e.g., ASCII)       | 10011110                        |

- 1           DISPLAY\_LEN    - The display length.  
2  
3           The base station shall set this field to the number of octets of  
4           display text. See [8] Annex D.  
5  
6           CHARi        - Character.  
7  
8           The base station shall include DISPLAY\_LEN occurrences of  
9           this field, one for each character to be displayed, except for  
10          blank and skip. The base station shall set each occurrence of  
            this field to the ASCII representation corresponding to the  
            character entered, as specified in [9], with the most significant  
            bit set to '0'.

1    3.7.5.17 Extended Record Type - International

2    The use of this record type is country-specific. The first ten bits of the type-specific fields  
3    shall include the Mobile Country Code (MCC) associated with the national standards  
4    organization administering the use of the record type. Encoding of the MCC shall be as  
5    specified in 2.3.1.3. The remaining six bits of the first two octets of the type-specific fields  
6    shall be used to specify the country-specific record type.

1 3.7.5.18 Reserved

1 3.7.5.19 Reserved

1    3.7.5.20 Non-Negotiable Service Configuration

2    This record is included in a *Service Connect Message* to specify the non-negotiable service  
 3    configuration parameters to be used by the mobile station. This record can be included in a  
 4    *General Handoff Direction Message* or a *Universal Handoff Direction Message* to specify the  
 5    non-negotiable service configuration parameters to be used by the mobile station.

6

| Type Specific Field | Length (bits) |
|---------------------|---------------|
| FPC_INCL            | 1             |
| FPC_PRI_CHAN        | 0 or 1        |
| FPC_MODE            | 0 or 3        |
| FPC_OLPC_FCH_INCL   | 0 or 1        |
| FPC_FCH_FER         | 0 or 5        |
| FPC_FCH_MIN_SETPT   | 0 or 8        |
| FPC_FCH_MAX_SETPT   | 0 or 8        |
| FPC_OLPC_DCCH_INCL  | 0 or 1        |
| FPC_DCCH_FER        | 0 or 5        |
| FPC_DCCH_MIN_SETPT  | 0 or 8        |
| FPC_DCCH_MAX_SETPT  | 0 or 8        |

|                   |        |
|-------------------|--------|
| GATING_RATE_INCL  | 1      |
| PILOT_GATING_RATE | 0 or 2 |

|              |        |
|--------------|--------|
| FOR_SCH_INCL | 1      |
| NUM_FOR_SCH  | 0 or 2 |

If FOR\_SCH\_INCL = '1', include NUM\_FOR\_SCH occurrences  
 of the following two-field record

|                      |   |
|----------------------|---|
| FOR_SCH_ID           | 2 |
| FOR_SCH_FRAME_OFFSET | 2 |

(continues on next page)

7

| Type Specific Field | Length (bits) |
|---------------------|---------------|
| REV_SCH_INCL        | 1             |
| NUM_REV_SCH         | 0 or 2        |

If REV\_SCH\_INCL = '1', include NUM\_REV\_SCH occurrences of the following two-field record

|                      |   |
|----------------------|---|
| REV_SCH_ID           | 2 |
| REV_SCH_FRAME_OFFSET | 2 |

|                 |        |
|-----------------|--------|
| LPM_IND         | 2      |
| NUM_LPM_ENTRIES | 0 or 4 |

If LPM\_IND = '01', include NUM\_LPM\_ENTRIES occurrences of the following six-field record:

|                   |   |
|-------------------|---|
| SR_ID             | 3 |
| LOGICAL_RESOURCE  | 4 |
| PHYSICAL_RESOURCE | 4 |
| FORWARD_FLAG      | 1 |
| REVERSE_FLAG      | 1 |
| PRIORITY          | 4 |

|         |   |
|---------|---|
| NUM_REC | 3 |
|---------|---|

NUM\_REC occurrences of the following variable-length record:

|             |                 |
|-------------|-----------------|
| RECORD_LEN  | 8               |
| SR_ID       | 3               |
| SDB_SO OMIT | 1               |
| RESERVED    | 0-7 (as needed) |

(continues on next page)

1

| Type Specific Field                      | Length (bits) |
|------------------------------------------|---------------|
| USE_FLEX_NUM_BITS                        | 1             |
| <u>USE_OLD_FLEX_NUM_BITS_TABLES_INCL</u> | 0 or 1        |
| NUM_BITS_TABLES_COUNT                    | 0 or 3        |

If USE\_FLEX\_NUM\_BITS is equal to '1' and NUM\_BITS\_TABLES\_INCL is equal to '1', then include NUM\_BITS\_TABLES\_COUNT+1 occurrences of the following record

|                   |   |
|-------------------|---|
| NUM_BITS_TABLE_ID | 4 |
| NUM_RECS          | 4 |

If USE\_FLEX\_NUM\_BITS is equal to '1', then NUM\_RECS +1 occurrences of the following record

|              |    |
|--------------|----|
| NUM_BITS_IDX | 4  |
| NUM_BITS     | 16 |
| CRC_LEN_IDX  | 3  |

|                                |        |
|--------------------------------|--------|
| USE_VAR_RATE                   | 1      |
| <u>USE_OLD_VAR_TABLES_INCL</u> | 0 or 1 |
| VAR_RATE_TABLES_COUNT          | 0 or 3 |

If USE\_VAR\_RATE is equal to '1' and VAR\_TABLES\_INCL is equal to '1', then include VAR\_RATE\_TABLES\_COUNT+1 occurrences of the following record

|                   |   |
|-------------------|---|
| VAR_RATE_TABLE_ID | 3 |
| NUM_RECS          | 4 |

For each of the above record, If USE\_VAR RATENUM\_BITS is equal to '1', then include NUM\_RECS +1 occurrences of the following record

|              |              |
|--------------|--------------|
| NUM_BITS_IDX | 4            |
| MASK         | NUM_BITS_IDX |

If USE\_FLEX\_NUM\_BITS is equal to '1', include the following fields

|                      |        |
|----------------------|--------|
| USE_OLD_FLEX_MAPPING | 1      |
| FSCH0_NBIT_TABLE_ID  | 0 or 4 |

---

(continues on next page)

1

| Type Specific Field | Length (bits) |
|---------------------|---------------|
| RSCH0_NBIT_TABLE_ID | 0 or 4        |
| FSCH1_NBIT_TABLE_ID | 0 or 4        |
| RSCH1_NBIT_TABLE_ID | 0 or 4        |
| FFCH_NBIT_TABLE_ID  | 0 or 4        |
| RFCH_NBIT_TABLE_ID  | 0 or 4        |
| FDCCH_NBIT_TABLE_ID | 0 or 4        |
| FDCCH_NBITS_IDX     | 0 or 4        |
| RDCCH_NBIT_TABLE_ID | 0 or 4        |
| RDCCH_NBITS_IDX     | 0 or 4        |

If USE\_VAR\_RATE is equal to '1', include the following fields

|                     |        |
|---------------------|--------|
| USE_OLD_VAR_MAPPING | 1      |
| FSCH0_VAR_TABLE_ID  | 0 or 3 |
| RSCH0_VAR_TABLE_ID  | 0 or 3 |
| FSCH1_VAR_TABLE_ID  | 0 or 3 |
| RSCH1_VAR_TABLE_ID  | 0 or 3 |
| R_INC_RATE_ALLOWED  | 0 or 1 |
| F_INC_RATE_ALLOWED  | 0 or 1 |

|                         |        |
|-------------------------|--------|
| LTU_INFO_INCL           | 1      |
| USE_OLD_LTU_TABLES_INCL | 0 or 1 |

If LTU\_INFO\_INCL is equal to '1' and

USE\_OLD\_LTU\_TABLES\_INCL is equal to '10', then include the following fields related to the LTU Size-Table shall be included

|                |        |
|----------------|--------|
| NUM_LTU_TABLES | 0 or 2 |
|----------------|--------|

Include NUM\_LTU\_TABLES + 1 instances-occurrences of the following records

|              |   |
|--------------|---|
| LTU_TABLE_ID | 3 |
|--------------|---|

(continues on next page)

2

1

| Type Specific Field | Length (bits) |
|---------------------|---------------|
| NUM_ROWS            | 4             |

For each occurrence of the above record, include include NUM\_ROWS + 1 instances-occurrences of the following records

|                     |            |
|---------------------|------------|
| NBITS_IDX           | 4          |
| <u>NUM_LTUS_LEN</u> | <u>164</u> |

|                     |        |
|---------------------|--------|
| USE_OLD_LTU_MAPPING | 0 or 1 |
| FSCH0_LTU_TAB_ID    | 0 or 3 |
| RSCH0_LTU_TAB_ID    | 0 or 3 |
| FSCH1_LTU_TAB_ID    | 0 or 3 |
| RSCH1_LTU_TAB_ID    | 0 or 3 |

If USE\_FLEX\_NUM\_BITS is equal to '1' and at least one of FFCH\_NBIT\_TABLE\_ID, RFCH\_NBIT\_TABLE\_ID, FDCCCH\_NBIT\_TABLE\_ID, or RDCCCH\_NBIT\_TABLE\_ID is not equal to '0000', then include the following fields

|                                       |               |
|---------------------------------------|---------------|
| <u>PARTITION_TABLES_INFO_INCL</u>     | <u>0 or 1</u> |
| <u>USE_OLD_PARTITION_TABLES_IN_CL</u> | <u>0 or 1</u> |
| NUM_PARTITION_TABLES                  | 0 or 2        |

Include NUM\_PARTITION\_TABLES + 1 instances-occurrences of the following records

|                    |   |
|--------------------|---|
| PARTITION_TABLE_ID | 3 |
| NUM_ROWS           | 5 |

For each occurrence of the above record, include include NUM\_ROWS + 1 instances-occurrences of the following records

|                |                |
|----------------|----------------|
| CATEGORY       | 5              |
| MUX_HEADER_LEN | 3              |
| MUX_HEADER     | MUX_HEADER_LEN |

(continues on next page)

2

1

| Type Specific Field | Length (bits) |
|---------------------|---------------|
| NUM_PARTITIONS      | 3             |

Include NUM\_PARTITIONS + 1 [instances-occurrences](#) of the following record

|              |   |
|--------------|---|
| SR_ID        | 3 |
| SRV_NUM_BITS | 9 |

|                      |        |
|----------------------|--------|
| USE_OLD_PART_MAPPING | 0 or 1 |
| FFCH_PART_TAB_ID     | 0 or 3 |
| RFCH_PART_TAB_ID     | 0 or 3 |
| FDCCH_PART_TAB_ID    | 0 or 3 |
| RDCCH_PART_TAB_ID    | 0 or 3 |

2

|          |                 |
|----------|-----------------|
| RESERVED | 0-7 (as needed) |
|----------|-----------------|

3

4

- 5           FPC\_INCL    - Forward power control information included indicator.  
 6                         The base station shall set this field to '1' if the forward power  
 7                         control information parameters are included in this record;  
 8                         otherwise, it shall set this field to '0'.

9

- 10          FPC\_PRI\_CHAN - Power Control Subchannel indicator.  
 11                         If the FPC\_INCL field is set to '0', the base station shall omit  
 12                         this field; otherwise, the base station shall include this field  
 13                         and set it as follows:

14                         The base station shall set this field to '0' if the mobile station  
 15                         is to perform the primary inner loop estimation on the  
 16                         received Forward Fundamental Channel and the base station  
 17                         is to multiplex the Power Control Subchannel on Forward  
 18                         Fundamental Channel; the base station shall set this field to  
 19                         '1' if the mobile station is to perform the primary inner loop  
 20                         estimation on the received Forward Dedicated Control  
 21                         Channel and the base station is to multiplex the Power  
 22                         Control Subchannel on Forward Dedicated Control Channel.

23                         If only Fundamental Channel is assigned, the base station  
 24                         shall set this field to '0'. If only the Dedicated Control  
 25                         Channel is assigned, the base station shall set this field to '1'.

- 25          FPC\_MODE    - Forward Power Control operation mode indicator.

If the FPC\_INCL field is set to '0', the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

The base station shall set this field to the value of the forward power control operation mode (see [2]).

FPC\_OLPC\_FCH\_INCL - Fundamental Channel Outer Loop Power Control parameter included indicator.

If the FPC\_INCL field is set to '0', the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

If the forward link Fundamental Channel outer loop power control parameters are included in this record, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.

FPC\_FCH\_FER - Fundamental Channel target Frame Error Rate.

If FPC\_OLPC\_FCH\_INCL is included and set to '1', the base station shall set this field to the target Frame Error Rate on the Forward Fundamental Channel, as specified in Table 3.7.3.3.2.25-2; otherwise, the base station shall omit this field.

FPC\_FCH\_MIN\_SETPT - Minimum Fundamental Channel Outer Loop Eb/Nt setpoint.

If FPC\_OLPC\_FCH\_INCL is included and set to '1', the base station shall set this field to minimum Fundamental Channel Outer Loop Eb/Nt setpoint, in units of 0.125dB; otherwise, the base station shall omit this field.

FPC\_FCH\_MAX\_SETPT - Maximum Fundamental Channel Outer Loop Eb/Nt setpoint.

If FPC\_OLPC\_FCH\_INCL is set to '1', the base station shall set this field to maximum Fundamental Channel Outer Loop Eb/Nt setpoint, in units of 0.125dB; otherwise, the base station shall omit this field.

FPC\_OLPC\_DCCH\_INCL - Dedicated Control Channel Outer Loop Power Control parameter included indicator.

If the FPC\_INCL field is set to '0', the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

If the forward link Dedicated Control Channel outer loop power control parameters are included in this message, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.

FPC\_DCCH\_FER - Dedicated Control Channel target Frame Error Rate.

If FPC\_OLPC\_DCCH\_INCL is included and set to '1', the base station shall set this field to the target Frame Error Rate on the Forward Dedicated Control Channel, as specified in Table 3.7.3.3.2.25-2; otherwise, the base station shall omit this field.

- 1 FPC\_DCCH\_MIN\_SETPT - Minimum Dedicated Control Channel Outer Loop Eb/Nt  
2 setpoint.
- 3 If FPC\_OLPC\_DCCH\_INCL is included and set to '1', the base  
4 station shall set this field to minimum Dedicated Control  
5 Channel Outer Loop Eb/Nt setpoint, in units of 0.125dB;  
6 otherwise, the base station shall omit this field.
- 7 FPC\_DCCH\_MAX\_SETPT - Maximum Dedicated Control Channel Outer Loop Eb/Nt  
8 setpoint.
- 9 If FPC\_OLPC\_DCCH\_INCL is included and set to '1', the base  
10 station shall set this field to maximum Dedicated Control  
11 Channel Outer Loop Eb/Nt setpoint, in units of 0.125dB;  
12 otherwise, the base station shall omit this field.
- 13 GATING\_RATE\_INCL- Reverse Pilot Channel Gating rate included flag.  
14 The base station shall set this field to '1' if the  
15 PILOT\_GATING\_RATE field is included; otherwise, it shall set  
16 this field to '0'.
- 17 PILOT\_GATING\_RATE - Reverse Pilot Channel Gating rate.  
18 If the GATING\_RATE\_INCL field is set to '0', the base station  
19 shall omit this field; otherwise, the base station shall set this  
20 field as follows: The base station shall set this field to the  
21 PILOT\_GATING\_RATE field shown in Table 3.7.5.20-1  
22 corresponding to the gating rate on the Reverse Pilot Channel.

**Table 3.7.5.20-1. Reverse Pilot Gating rate**

| <b>PILOT_GATING_RATE field<br/>(binary)</b> | <b>Meaning</b>            |
|---------------------------------------------|---------------------------|
| 00                                          | Gating rate 1             |
| 01                                          | Gating rate $\frac{1}{2}$ |
| 10                                          | Gating rate $\frac{1}{4}$ |
| 11                                          | Reserved                  |

- 24
- 25 FOR\_SCH\_INCL - Forward Supplemental Channel information included  
26 indicator.
- 27 The base station shall set this field to '1', if the forward  
28 Supplemental Channel information is included; otherwise, the  
29 base station shall set this field to '0'.
- 30 NUM\_FOR\_SCH - Number of Forward Supplemental Channels.  
31 If the FOR\_SCH\_INCL field is set to '0', the base station shall  
32 omit this field; otherwise, the base station shall set this field  
33 to the number of Forward Supplemental Channels associated  
34 with this service configuration.
- 35 If the NUM\_FOR\_SCH field is present and is set to any value other than '00', the base  
36 station shall include one occurrence of the following two field record for each Forward  
37 Supplemental Channel included in this record:

- 1           FOR\_SCH\_ID   - Forward Supplemental Channel Identification.  
 2                         The base station shall set this field to the identifier of the  
 3                         Forward Supplemental Channel pertaining to this record.
- 4           FOR\_SCH-  
 5       \_FRAME\_OFFSET   - Forward Supplemental Channel multiple frame offset.  
 6                         The base station shall set this field to the multiple frame offset  
 7                         of this Forward Supplemental Channel. The frames of this  
 8                         Forward Supplemental Channel are delayed by  
 9                         ( $\text{FRAME\_OFFSET} \times 1.25 + \text{FOR\_SCH\_FRAME\_OFFSET} \times 20$ )  
 10                         ms relative to system timing (see [2]).
- 11
- 12          REV\_SCH\_INCL   - Reverse Supplemental Channel information included  
 13                         indicator.  
 14                         The base station shall set this field to '1' if the reverse  
 15                         Supplemental Channel information is included; otherwise, the  
 16                         base station shall set this field to '0'.
- 17          NUM\_REV\_SCH   - Number of Reverse Supplemental Channels.  
 18                         If the REV\_SCH\_INCL field is set to '0', the base station shall  
 19                         omit this field; otherwise, the base station shall set this field  
 20                         to the number of Reverse Supplemental Channels associated  
 21                         with this service configuration.
- 22          If the NUM\_REV\_SCH field is present and is set to any value other than '00', the base  
 23                         station shall include one occurrence of the following four field record for each Reverse  
 24                         Supplemental Channel included in this record:
- 25          REV\_SCH\_ID   - Reverse Supplemental Channel Identification.  
 26                         The base station shall set this field to the identifier of the  
 27                         Reverse Supplemental Channel pertaining to this record.
- 28          REV\_SCH-  
 29       \_FRAME\_OFFSET   - Reverse Supplemental Channel multiple frame offset.  
 30                         The base station shall set this field to the multiple frame offset  
 31                         with this Reverse Supplemental Channel. The frames of this  
 32                         Reverse Supplemental Channel are delayed by  
 33                         ( $\text{FRAME\_OFFSET} \times 1.25 + \text{REV\_SCH\_FRAME\_OFFSET} \times 20$ )  
 34                         ms relative to system timing (see [2]).
- 35
- 36          LPM\_IND   - Logical to Physical Mapping indicator.  
 37                         The base station shall set this field to the LPM\_IND field value  
 38                         shown in Table 3.7.5.20-2 corresponding to the Logical to  
 39                         Physical Mapping indicator.
- 40                         The base station shall not set this field to '00' if there is more  
 41                         than one service option connection in the current Service  
 42                         Configuration information record.

**Table 3.7.5.20-2. Logical to Physical Mapping indicator**

| <b>LPM_IND Field (binary)</b> | <b>Logical-to-Physical Mapping indicator</b>              |
|-------------------------------|-----------------------------------------------------------|
| 00                            | Use the default Logic-to-Physical Mapping                 |
| 01                            | Use the Logic-to-Physical Mapping included in this record |
| 10                            | Use the previous stored Logic-to-Physical Mapping         |
| 11                            | Reserved                                                  |

3      NUM\_LPM\_ENTRIES -     Number of Logical-to-Physical Mapping entries.

4                          If the LPM\_IND field is set to '01', the base station shall  
 5                          include this field and set it as follows; otherwise, the base  
 6                          station shall omit this field:

7                          The base station shall set this field to the number of Logical-  
 8                          to-Physical Mapping entries that are included in this record.

9                          If the NUM\_LPM\_ENTRIES field is included and is not equal to '0000', the base station shall  
 10                        include NUM\_LPM\_ENTRIES occurrences of the following six-field record for each Logical-  
 11                        to-Physical Mapping entry:

- 12                        SR\_ID    -    Service reference identifier.  
                                 The base station shall set this field to the identifier of the service reference to which this Logical to Physical Mapping entry applies.
- 16                        LOGICAL\_RESOURCE    -    Logical resource identifier.  
                                 The base station shall set this field to the logical resource identifier shown in Table 3.7.5.20-3 which is to be mapped by this Logical to Physical Mapping entry.

**Table 3.7.5.20-3. Logical Resource Identifier.**

| <b>LOGICAL_RESOURCE (binary)</b> | <b>Logical Resource</b> |
|----------------------------------|-------------------------|
| 0000                             | dtch                    |
| 0001                             | dsch                    |
| 0010 – 1111                      | Reserved                |

21                        PHYSICAL\_RESOURCE    -    Physical resource identifier.

1                   The base station shall set this field to the physical resource  
 2                   identifier shown in Table 3.7.5.20-4 to which the logical  
 3                   channel specified in this Logical to Physical Mapping entry is  
 4                   to be mapped.

**Table 3.7.5.20-4. Physical Resource Identifier.**

| <b>PHYSICAL_RESOURCE<br/>(binary)</b> | <b>Physical Resource</b> |
|---------------------------------------|--------------------------|
| 0000                                  | FCH                      |
| 0001                                  | DCCH                     |
| 0010                                  | SCH0                     |
| 0011                                  | SCH1                     |
| 0100 – 1111                           | Reserved                 |

- 6
- 7       FORWARD\_FLAG   - Forward mapping indicator.  
 8                   The base station shall set this field to ‘1’ if the logical to  
 9                   physical channel mapping specified in this record applies to  
 10                  forward logical channels; otherwise, the base station shall set  
 11                  this field to ‘0’.
- 12      REVERSE\_FLAG   - Reverse mapping indicator.  
 13                   The base station shall set this field to ‘1’ if the logical to  
 14                   physical channel mapping specified in this record applies to  
 15                  reverse logical channels; otherwise, the base station shall set  
 16                  this field to ‘0’.
- 17      PRIORITY       - Multiplexing priority.  
 18                   The base station shall set this field to ‘0000’.
- 19      NUM\_REC        - Number of service-specific records.  
 20                   The base station shall set this field to the number of the  
 21                  following variable-length records included in the message.
- 22      The base station shall include one occurrence of the following variable-length record for  
 23                  each service option connection for which this record needs to be specified.
- 24      RECORD\_LEN      - Record length.  
 25                   The base station shall set this field to the number of octets  
 26                  included in this variable-length record including this field.
- 27      SR\_ID           - Service reference identifier.  
 28                   The base station shall set this field to the identifier of the  
 29                  service reference associated with this service-specific record.
- 30      SDB\_SO OMIT    - Short Data Burst service option number omitted indicator.

The base station shall set this field to '1' if the mobile station is required to omit the service option number when sending Short Data Burst (see IS-707-A-2) for this service option connection; otherwise, the base station shall set this field to '0'.



10 USE\_FLEX\_NUM\_BITS - Use flexible (non-default) number of bits per frame indicator.  
11  
12 The base station shall set this field to '0' to indicate that the  
13 mapping between the number of information bits per frame  
14 [NUM BITS], and a four-bit index field [NUM BITS IDX], shall  
15 follow the default mapping identified in Table 3.7.3.3.2.37-2  
and Table 3.7.3.3.2.37-4.

16 The base station shall set this field to '1' to indicate a non-  
17 default mapping between the number of information bits per  
18 frame, [\[NUM\\_BITS\]](#), and a four-bit index field  
19 [\[NUM\\_BITS\\_IDX\]](#) is [specified in this message used](#) for at least  
20 a forward or reverse traffic channel.

**USE\_OLD\_FLEXNUM\_BITS** TABLES\_INCL - Use the previously downloaded Flexible Rate Tables included indicator.

If the USE FLEX NUM BITS field is equal to '0', the base station shall omit this field; otherwise, the base station shall include this field and set this field as follows:

27 The base station shall include this field only if  
28 USE\_FLEX\_NUM\_BITS is equal to '1'. If this field is included,  
29 the base station shall set this field to '1' to indicate that the  
30 mobile station is to use the previously downloaded Flexible  
31 Rate Table. The base station shall set this field to '0' if the  
32 fields related to downloading the Flexible Rate Table are  
33 included in this message. If the Flexible Rate Tables are  
34 included in this message, the base station shall set this field  
35 to '1'; otherwise, the base station shall set this field to '0'.

37                   NUM\_BITS-  
38    \_TABLES\_COUNT - Number of instances of the Flexible Rate Table included in  
39                    this message.

1            If the NUM\_BITS\_TABLES\_INCL field is included and is equal  
 2            to '1', the base station shall include this field only if  
 3            ~~USE\_OLD\_FLEX\_TABLE~~ field is included and is set to '0'. If  
 4            ~~this field is included, the base station shall and~~ set this field  
 5            to one less than the number of instances of the Flexible Rate  
 6            Table included in this message; otherwise, the base station  
 7            shall omit this field.

8     If ~~USE\_OLD\_FLEXNUM\_TABLES\_INCL~~ is included and is equal to '01', the base station  
 9     shall include NUM\_BITS\_TABLES\_COUNT+1 instances of the Flexible Rate Table

10    NUM\_BITS\_TABLE\_ID    - Flexible Rate Table ID.

11            The base station shall set this field to the ID of the Flexible  
 12            Rate Table that follows. The value of '0000' is reserved to  
 13            indicate the default table. The base station shall not set this  
 14            field to '0000'.

15    NUM\_RECS    - Number of records in the Flexible Rate Table.

16            The base station shall set this field to one less than the  
 17            number of three-field records that follows

18     The base station shall include NUM\_RECS+1 instances of the following three-field record:

19     NUM\_BITS\_IDX    - Index to the number of bits array.

20            The base station shall set this field to the index to the array  
 21            that identifies the number of bits per frame.

22     NUM\_BITS    - Number of bits array.

23            The base station shall set this field to the number of  
 24            information bits per frame corresponding to the index  
 25            specified by NUM\_BITS\_IDX. The base station shall set the  
 26            number of information bits per frame in accordance with the  
 27            number of information bits per frame specified by the service  
 28            option numbers included in the service configuration record.

29     CRC\_LEN\_IDX    - Array of Number of CRC bits.

30            The base station shall set this field to specify the number of  
 31            CRC bits per frame corresponding to the index specified by  
 32            NUM\_BITS\_IDX according to Table 3.7.5.20-4. The base  
 33            station shall not specify more than one value of the CRC  
 34            length for the same number of bits per frame for a specific  
 35            channel (i.e., for a given channel, the number of information  
 36            bits per frame uniquely specifies the length of the CRC field).

**Table 3.7.5.20-4. CRC\_LEN\_IDX**

| <b>CRC_LEN_IDX<br/>(binary)</b> | <b>Number of CRC<br/>bits per frame</b> |
|---------------------------------|-----------------------------------------|
| 000                             | 0                                       |
| 001                             | 6                                       |
| 010                             | 8                                       |
| 011                             | 10                                      |
| 100                             | 12                                      |
| 101                             | 16                                      |
| 110-111                         | Reserved                                |

- 2
- 3        USE\_VAR\_RATE     - Use variable rate on supplemental channels indicator.
- 4              The base station shall set this field to '1' to indicate that at
- 5              least one of the forward or reverse supplemental channels is
- 6              to operate in the variable rate mode (i.e., the rate of the
- 7              supplemental channel can be picked from a pre-determined
- 8              set of rates autonomously).
- 9              The base station shall set this bit to '0' to indicate that
- 10             variable rate on supplemental channels are not allowed.

11        USE\_OLD\_VAR\_TABLES\_INCL    - Use the previously downloaded Variable Rate Tables included indicator.

13            If the USE VAR RATE field is equal to '0', the base station  

14            shall omit this field; otherwise, the base station shall include  

15            this field and set this field as follows:

17            ~~The base station shall include this field only if~~  

18            ~~USE\_VAR\_RATE is equal to '1'. If this field is included, the~~  

19            ~~base station shall set this field to '1' to indicate that the~~  

20            ~~mobile station is to use the previously downloaded Variable~~  

21            ~~Rate Mask Table. The base station shall set this field to '0' if~~  

22            ~~the fields related to downloading the Variable Rate Mask Table~~  

23            ~~are included in this message. If the Variable Rate Tables are~~  

24            ~~included in this message, the base station shall set this field~~  

25            ~~to '1'; otherwise, the base station shall set this field to '0'.~~

- 26
- 27        VAR\_RATE-  

28        \_TABLES\_COUNT     - Number of instances of the Variable Rate Mask Table included

29            in this message.

If VAR\_TABLES\_INCL is included and is equal to '1', the base station shall include this field and set this field to one less than the number of instances of the Variable Rate Mask table included in this message as follows; otherwise, the base station shall omit this field:

The base station shall include this field only if USE\_OLD\_VAR\_TABLE field is included and is set to '0'. If this field is included, the base station shall set this field to one less than the number of instances of the Variable Rate Mask table included in this message as follows.

If USE\_OLD\_VAR\_TABLES\_INCL is included and is equal to '10', the base station shall include VAR\_RATE\_TABLES\_COUNT +1 instances of the Variable Rate Mask table

VAR\_RATE\_TABLE\_ID - Variable Rate Mask table ID.

The base station shall set this field to the ID of the Variable Rate Mask table that follows. The value of '000' is reserved to indicate no variable rate operation. The base station shall not set this field to '000'.

NUM\_RECS - Number of records in the Variable Rate Mask table.

The base station shall set this field to one less than the number of two-field records that follows

The base station shall include NUM\_RECS+1 instances of the following two fields:

NUM\_BITS\_IDX - Index to the number of bits array.

The base station shall set this field to the index to the array that identifies the number of bits per supplemental channel frame.

MASK - Number of bits array.

The base station shall set this field to a mask that identifies the other members of the Variable Rate Set. The base station shall set the  $i^{\text{th}}$  LSB bit ( $i=1, \dots, \text{NUM\_BITS\_IDX}$ ) of this field to '1' to indicates that the number of bits per frame specified by the index  $\text{NUM\_BITS\_IDX}-i$  is to be included in the Supplemental Variable Rate Set.

USE\_OLD-\_FLEX\_MAPPING - Use the previously downloaded mapping between the channels and Flexible Rate Tables.

If the USE\_FLEX\_NUM\_BITS field is equal to '0', the base station shall omit this field; otherwise, the base station shall include this field and set this field as follows:

1           The base station shall include this field only if  
 2           ~~USE\_FLEX\_NUM\_BITS~~ field is set to '1'. If this field is  
 3           included, the base station shall set this field to '1' to indicate  
 4           that the mobile station is to use the previously downloaded  
 5           mapping between the channels and Flexible Rate Tables. The  
 6           base station shall set this field to '0', if the following eight  
 7           fields are included in this message.

- 8        FSCH0\_NBIT\_TABLE\_ID - Forward Supplemental Channel 0 Flexible Rate Table ID.  
 9           If the USE OLD FLEX MAPPING field is included and is equal  
 10          to '0', the base station shall include this field and set this field  
 11          as follows; otherwise, the base station shall omit this field:

12           The base station shall include this field only if  
 13           ~~USE\_OLD\_FLEX\_MAPPING~~ field is included and is set to '0'. If  
 14           this field is included, the base station shall set this field to the  
 15           ID of the Flexible Rate Table corresponding to Forward  
 16           Supplemental Channel 0. The base station shall set this field  
 17           to '0000' to indicate that the Flexible Rate feature is not used  
 18           for Forward Supplemental 0 and the default table specified in  
 19           3.7.3.3.2.37-4 shall be used.

- 21        RSCH0\_NBIT\_TABLE\_ID - Reverse Supplemental Channel 0 Flexible Rate Table ID.  
 22           If the USE OLD FLEX MAPPING field is included and is equal  
 23          to '0', the base station shall include this field and set this field  
 24          as follows; otherwise, the base station shall omit this field:

25           The base station shall include this field only if  
 26           ~~USE\_OLD\_FLEX\_MAPPING~~ field is included and is set to '0'. If  
 27           this field is included, the base station shall set this field to the  
 28           ID of the Flexible Rate Table corresponding to Reverse  
 29           Supplemental Channel 0. The base station shall set this field  
 30           to '0000' to indicate that the Flexible Rate feature is not used  
 31           for Reverse Supplemental 0 and the default table specified in  
 32           3.7.3.3.2.37-2 shall be used.

- 33        FSCH1\_NBIT\_TABLE\_ID - Forward Supplemental Channel 1 Flexible Rate Table ID.  
 34           If the USE OLD FLEX MAPPING field is included and is equal  
 35          to '0', the base station shall include this field and set this field  
 36          as follows; otherwise, the base station shall omit this field:

37           The base station shall include this field only if  
 38           ~~USE\_OLD\_FLEX\_MAPPING~~ field is included and is set to '0'. If  
 39           this field is included, the base station shall set this field to the  
 40           ID of the Flexible Rate Table corresponding to Forward  
 41           Supplemental Channel 1. The base station shall set this field  
 42           to '0000' to indicate that the Flexible Rate feature is not used  
 43           for Forward Supplemental 1 and the default table specified in  
 44           3.7.3.3.2.37-4 shall be used.

- 46        RSCH1\_NBIT\_TABLE\_ID - Reverse Supplemental Channel 1 Flexible Rate Table ID.

1           If the USE OLD FLEX MAPPING field is included and is equal  
 2           to '0', the base station shall include this field and set this field  
 3           as follows; otherwise, the base station shall omit this field:

5           The ~~base station shall include this field only if~~  
 6           ~~USE\_OLD\_FLEX\_MAPPING field is included and is set to '0'.~~ If  
 7           ~~this field is included, the~~ base station shall set this field to the  
 8           ID of the Flexible Rate Table corresponding to Reverse  
 9           Supplemental Channel 1. The base station shall set this field  
 10          to '0000' to indicate that the Flexible Rate feature is not used  
 11          for Reverse Supplemental 1 and the default table specified in  
 12          3.7.3.3.2.37-2 shall be used.

13         .

14 FFCH\_NBIT\_TABLE\_ID - Forward Fundamental Channel Flexible Rate Table ID.

15           If the USE OLD FLEX MAPPING field is included and is equal  
 16           to '0', the base station shall include this field and set this field  
 17           as follows; otherwise, the base station shall omit this field:

18           The ~~base station shall include this field only if~~  
 19           ~~USE\_OLD\_FLEX\_MAPPING field is included and is set to '0'.~~ If  
 20           ~~this field is included, the~~ base station shall set this field to the  
 21           ID of the Flexible Rate Table corresponding to the Forward  
 22           Fundamental Channel. The base station shall set this field to  
 23           't0000' to indicate that the Flexible Rate feature is not used for  
 24           the Forward Fundamental Channel.

25 RFCH\_NBIT\_TABLE\_ID - Reverse Fundamental Channel Flexible Rate Table ID.

26           If the USE OLD FLEX MAPPING field is included and is equal  
 27           to '0', the base station shall include this field and set this field  
 28           as follows; otherwise, the base station shall omit this field:

29           The ~~base station shall include this field only if~~  
 30           ~~USE\_OLD\_FLEX\_MAPPING field is included and is set to '0'.~~ If  
 31           ~~this field is included, the~~ base station shall set this field to the  
 32           ID of the Flexible Rate Table corresponding to the Reverse  
 33           Fundamental Channel. The base station shall set this field to  
 34           't0000' to indicate that the Flexible Rate feature is not used for  
 35           the Reverse Fundamental Channel.

36 FDCCCH\_NBIT\_TABLE\_ID - Forward Dedicated Control Channel Flexible Rate Table ID.

37           If the USE OLD FLEX MAPPING field is included and is equal  
 38           to '0', the base station shall include this field and set this field  
 39           as follows; otherwise, the base station shall omit this field:

40           The ~~base station shall include this field only if~~  
 41           ~~USE\_OLD\_FLEX\_MAPPING field is included and is set to '0'.~~ If  
 42           ~~this field is included, the~~ base station shall set this field to the  
 43           ID of the Flexible Rate Table corresponding to the Forward  
 44           Dedicated Control Channel. The base station shall set this  
 45           field to '0000' to indicate that the Flexible Rate feature is not  
 46           used for the Forward Dedicated Control Channel.

|    |                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | FDCCH_NBITS_IDX     | <ul style="list-style-type: none"> <li>- Forward Dedicated Control Channel number of information bits per frame index.</li> </ul> <p><u>If the FDCCH_NBIT_TABLE_ID field is included and is not equal to '0000'.</u></p> <p><u>The base station shall include this field only if the FDCCH_NBITS_TABLE_ID field is included and is not equal to '0000'. If included, the base station shall include this field and set this field to indicate the number of information bits per Forward Dedicated Control Channel frame; otherwise, the base station shall omit this field.</u></p>                                                                                                                                                                                 |
| 11 |                     | The number of information bits per frame is specified by the Flexible Rate Table associated with Forward Dedicated Control Channel and FDCCH_NBITS_IDX as the index to the table (i.e., $\text{NUM\_BITS}_S[\text{FDCCH\_NBITS\_TABLE\_ID}_R][\text{FDCCH\_NBITS\_IDX}]$ ).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 16 | RDCCH_NBIT_TABLE_ID | <ul style="list-style-type: none"> <li>- Reverse Dedicated Control Channel Flexible Rate Table ID.</li> </ul> <p><u>If the USE_OLD_FLEX_MAPPING field is included and is equal to '0', the base station shall include this field and set this field as follows; otherwise, the base station shall omit this field:</u></p> <p><u>The base station shall include this field only if USE_OLD_FLEX_MAPPING field is included and is set to '0'. If this field is included, the base station shall set this field to the ID of the Flexible Rate Table corresponding to the Reverse Dedicated Control Channel. The base station shall set this field to '0000' to indicate that the Flexible Rate feature is not used for the Reverse Dedicated Control Channel.</u></p> |
| 28 | RDCCH_NBITS_IDX     | <ul style="list-style-type: none"> <li>- Reverse Dedicated Control Channel number of information bits per frame index.</li> </ul> <p><u>If the RDCCH_NBIT_TABLE_ID field is included and is not equal to '0000'.</u></p> <p><u>The base station shall include this field only if the RDCCH_NBITS_TABLE_ID field is included and is not equal to '0000'. If included, the base station shall include this field and set this field to indicate the number of information bits per Reverse Dedicated Control Channel frame; otherwise, the base station shall omit this field.</u></p>                                                                                                                                                                                 |
| 38 |                     | The number of information bits per frame is specified by the Flexible Rate Table associated with Reverse Dedicated Control Channel and RDCCH_NBITS_IDX as the index to the table (i.e., $\text{NUM\_BITS}_S[\text{RDCCH\_NBITS\_TABLE\_ID}_R][\text{RDCCH\_NBITS\_IDX}]$ ).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 43 | USE_OLD_VAR_MAPPING | <ul style="list-style-type: none"> <li>- Use the previously downloaded mapping between the channels and Variable Rate Mask Tables.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

If the USE\_VAR\_RATE field is equal to '0', the base station shall omit this field; otherwise, the base station shall include this field and set this field as follows: only if USE\_VAR\_RATE field is set to '1'. If this field is included, the base station shall set this field to '1' to indicate that the mobile station is to use the previously downloaded mapping between the channels and Variable Rate Mask Tables. The base station shall set this field to '0', if the following four fields are included in this message.

- FSCH0\_VAR\_TABLE\_ID - Forward Supplemental Channel 0 Variable Rate Mask Table ID.

If the USE\_OLD\_VAR\_MAPPING field is included and is equal to '0', the base station shall include this field and set this field as follows; otherwise, the base station shall omit this field:

The base station shall include this field only if USE\_OLD\_VAR\_MAPPING field is included and is set to '1'. If this field is included, the base station shall set this field to the ID of the Variable Rate Mask Table corresponding to Forward Supplemental Channel 0. The base station shall set this field to '000' to indicate that no variable rate operation is performed on the F-SCH0.

- RSCH0\_VAR\_TABLE\_ID - Reverse Supplemental Channel 0 Variable Rate Mask Table ID.

If the USE\_OLD\_VAR\_MAPPING field is included and is equal to '0', the base station shall include this field and set this field as follows; otherwise, the base station shall omit this field:

The base station shall include this field only if USE\_OLD\_VAR\_MAPPING field is included and is set to '1'. If this field is included, the base station shall set this field to the ID of the Variable Rate Mask Table corresponding to Reverse Supplemental Channel 0. The base station shall set this field to '000' to indicate that the mobile station is not to autonomously change the rate of the R-SCH0.

- FSCH1\_VAR\_TABLE\_ID - Forward Supplemental Channel 1 Variable Rate Mask Table ID.

If the USE\_OLD\_VAR\_MAPPING field is included and is equal to '0', the base station shall include this field and set this field as follows; otherwise, the base station shall omit this field:

1           The base station shall include this field only if  
 2           ~~USE\_OLD\_VAR\_MAPPING field is included and is set to '1'.~~ If  
 3           ~~this field is included, the~~ base station shall set this field to the  
 4           ID of the Variable Rate Mask Table corresponding to Forward  
 5           Supplemental Channel 1. The base station shall set this field  
 6           to '000' to indicate that no variable rate operation is performed  
 7           on the F-SCH1.

8       RSCH1\_VAR\_TABLE\_ID - Reverse Supplemental Channel 1 Variable Rate Mask Table  
 9           ID.

10           If the USE OLD VAR MAPPING field is included and is equal  
           to '0', the base station shall include this field and set this field  
           as follows; otherwise, the base station shall omit this field:

13           The base station shall include this field only if  
 14           ~~USE\_OLD\_VAR\_MAPPING field is included and is set to '1'.~~ If  
 15           ~~this field is included, the~~ base station shall set this field to the  
 16           ID of the Variable Rate Mask Table corresponding to Reverse  
 17           Supplemental Channel 1. The base station shall set this field  
 18           to '000' to indicate that the mobile station is not to  
 19           autonomously change the rate of the R-SCH1.

20       R\_INC\_RATE\_ALLOWED - Reverse increase rate within Variable Rate Set Allowed  
 21           indicator.

22           If the USE VAR RATE field is included and is equal to '1', the  
           base station shall include this field and set this field as  
           follows; otherwise, the base station shall omit this field:

26           The base station shall include this field only if  
 27           ~~USE\_VAR\_RATE field is included and is set to '1'.~~ If this field  
 28           is included, the base station shall set this field to '1' to  
 29           indicate that the mobile station is allowed to switch between  
 30           any of the rates (i.e., number of bits per frame) in the Variable  
 31           Rate Set for the Reverse Supplemental channels. The base  
 32           station shall set this field to '0' to indicate that only a  
 33           downward transition in rate within the rates (i.e., number of  
 34           bits per frame) in the Variable Rate Set for the Reverse  
 35           Supplemental channels is allowed.

36       F\_INC\_RATE\_ALLOWED - Forward increase rate within Variable Rate Set Allowed  
 37           indicator.

38           If the USE VAR RATE field is included and is equal to '1', the  
           base station shall include this field and set this field as  
           follows; otherwise, the base station shall omit this field:

1                   The ~~base station shall include this field only if  
2                   USE\_VAR\_RATE field is included and is set to '1'. If this field  
3                   is included, the~~ base station shall set this field to '1' to  
4                   indicate that the base station is allowed to switch between any  
5                   of the rates (i.e., number of bits per frame) in the Variable  
6                   Rate Set for the Forward Supplemental channels. The base  
7                   station shall set this field to '0' to indicate that only a  
8                   downward transition in rate within the rates (i.e., number of  
9                   bits per frame) in the Variable Rate Set for the Forward  
10                  Supplemental channels is possible.

11                  LTU\_INFO\_INCL - LTU ~~Size~~-Tables included indicator.

12  
13                  The base station shall set this field to '1' ~~if the base station  
14                  includes to indicate that LTU Size Table information LTU  
15                  related information is included~~ in this message; otherwise, the  
16                  base station shall set this field to '0'. ~~The base station shall  
17                  include at least one LTU Size Table if USE\_FLEX\_NUM\_BITS is  
18                  equal to '1' and at least one of FSCH0\_NBIT\_TABLE\_ID,  
19                  FSCH1\_NBIT\_TABLE\_ID, RSCH0\_NBIT\_TABLE\_ID, or  
20                  RSCH1\_NBIT\_TABLE\_ID is not equal to '0000' (i.e., the base  
21                  station is to specify the LTU size table for the supplemental  
22                  channels that are using the flexible rate feature).~~

23  
24                  The base station shall set this field to '0' ~~if the mobile station  
25                  indicates that it does not support downloadable LTU Table in  
26                  the capability information (i.e., the  
27                  F SCH LTU TAB SUPPORTED and  
28                  R SCH LTU TAB SUPPORTED fields in the capability  
29                  information are equal to '0');~~

30                  USE\_OLD\_LTU\_TABLES\_INCL - ~~Use the previously downloaded~~ LTU Tables included  
31                  indicator.

32  
33                  If the LTU INFO INCL field is equal to '0', the base station  
34                  shall omit this field; otherwise, the base stations shall include  
35                  this field and set this field as follows:

36  
37                  The base station shall include this field only if  
38                  USE\_FLEX\_NUM\_BITS is equal to '1' and LTU\_INFO\_INCL is  
39                  equal to '1'. If this field is included, the base station shall set  
40                  this field to '1' to indicate that the mobile station is to use the  
41                  previously downloaded LTU Table. The base station shall set  
42                  this field to '0' if the fields related to downloading the LTU  
43                  Table are included in this message. ~~If the LTU Tables are  
44                  included in this message, the base station shall set this field  
45                  to '1'; otherwise, the base station shall set this field to '0'.~~

If USE\_OLD\_LTU\_TABLES\_INCL is included and is equal to '01', the base station shall include the following fields related to the LTU Size Table information:

NUM\_LTU\_TABLES - Number of LTU tables included.

If USE\_OLD\_LTU\_TABLE is equal to '0', the base station shall include this field. If this field is included, the The base station shall set this field to the number of LTU Tables minus one included in this message.

If USE\_OLD\_LTU\_TABLES\_INCL is included and is equal to '01', then the base station shall include NUM\_LTU\_TABLES + 1 occurrences of the following fields:

LTU\_TABLE\_ID - LTU Table ID.

The base station shall set this field to the ID of the LTU Table that follows. The base station shall not set this field to '000'.

NUM\_ROWS - Number of configurations associated with the LTU Table identified by LTU\_TABLE\_ID.

The base station shall set this field to one less than the number of rows of the LTU Table identified by LTU\_TABLE\_ID.

If USE\_OLD\_LTU\_TABLES\_INCL is included and is equal to '01', then the base station shall include the NUM\_ROWS + 1 occurrences of the following fields:

NBITS\_IDX - Number of bits per frame index.

The base station shall set this field to the 4-bit index that specified the number of information bits per supplemental channel frame.

NUM\_LTUS\_LEN - Length\_Number of the LTUs per physical layer supplemental channel frame.

The base station shall set this field to the length specify the number of an LTUs per physical layer supplemental channel frame (in units of bits) corresponding to the number of information bits per supplemental channel frame specified by NBITS\_IDX according to Table 3.7.5.20-5. The base station shall set this field to zero '0000' to indicate that no LTUs are supported for the number of information bits per frame specified by NBITS\_IDX.

**Table 3.7.5.20-5. NUM\_LTUS**

| <u>NUM_LTUS<br/>(binary)</u> | <u>Number of LTUS<br/>per supplemental<br/>channel frame</u> |
|------------------------------|--------------------------------------------------------------|
| <u>0000</u>                  | <u>0</u>                                                     |
| <u>0001</u>                  | <u>2</u>                                                     |
| <u>0010</u>                  | <u>3</u>                                                     |
| <u>0011</u>                  | <u>4</u>                                                     |
| <u>0100</u>                  | <u>5</u>                                                     |
| <u>0101</u>                  | <u>6</u>                                                     |
| <u>0110</u>                  | <u>7</u>                                                     |
| <u>0111</u>                  | <u>8</u>                                                     |
| <u>1000-1111</u>             | <u>Reserved</u>                                              |

- 4                  USE\_OLD-  
 5                  \_LTU\_MAPPING    -    Use the previously downloaded mapping between the channels  
 6                  and LTU Tables.
- 7                  If the LTU\_INFO\_INCL field is equal to '0', the base station  
 8                  shall omit this field; otherwise, the base station shall include  
 9                  this field and set this field as follows:
- 10                 ~~The base station shall include this field only if USE\_FLEX\_NUM\_BITS is equal to '1' and at least one of FSCH0\_NBIT\_TABLE\_ID, FSCH1\_NBIT\_TABLE\_ID, RSCH0\_NBIT\_TABLE\_ID, or RSCH1\_NBIT\_TABLE\_ID is not equal to '0000' (i.e., the base station is to specify the LTU size table for the supplemental channels that are using the flexible rate feature). If this field is included, the base station shall set this field to '1' to indicate that the mobile station is to use the previously downloaded mapping between the channels and LTU Tables. The base station shall set this field to '0', if the following four fields are included in this message.~~
- 22                 FSCH0\_LTU\_TAB\_ID    -    Forward Supplemental Channel LTU ~~Size~~-Table ID.

1           If USE\_OLD\_LTU\_MAPPING is included and is equal to '0',  
 2           the base station shall include this field and set this field as  
 3           follows; otherwise, the base station shall omit this field:- If  
 4           this field is included, the The base station shall set this field  
 5           to the LTU Table ID to be used for the Forward Supplemental  
 6           Channel 0. The base station shall set this field to '000' to  
 7           indicate that the default number of LTUs sizes are to be used  
 8           (see [3]). (The default LTU size is not applicable to  
 9           supplemental channels with multiplex options that use  
 10          MuxPDU Type 5; see [3]). The base station shall set this field  
 11          to '000' if MuxPDU Type 5 is not used on this channel (see  
 12          [3]).

- 13
- 14
- 15        RSCH0\_LTU\_TAB\_ID    - Reverse Supplemental Channel LTU Size-Table ID.  
 16        If USE\_OLD\_LTU\_MAPPING is included and is equal to '0',  
 17        the base station shall include this field and set this field as  
 18        follows; otherwise, the base station shall omit this field:- If  
 19        this field is included, the The base station shall set this field  
 20        to the LTU Table ID to be used for the Reverse Supplemental  
 21        Channel 0. The base station shall set this field to '000' to  
 22        indicate that the default number of LTUs sizes are to be used  
 23        (see [3]). (The default LTU size is not applicable to  
 24        supplemental channels with multiplex options that use  
 25        MuxPDU Type 5; see [3]). The base station shall set this field  
 26        to '000' if MuxPDU Type 5 is not used on this channel (see  
 27        [3]).
- 28
- 29        FSCH1\_LTU\_TAB\_ID    - Forward Supplemental Channel LTU Size-Table ID.  
 30        If USE\_OLD\_LTU\_MAPPING is included and is equal to '0',  
 31        the base station shall include this field and set this field as  
 32        follows; otherwise, the base station shall omit this field:- If  
 33        this field is included, the The base station shall set this field to  
 34        the LTU Table ID to be used for the Forward Supplemental  
 35        Channel 1. The base station shall set this field to '000' to  
 36        indicate that the default number of LTUs sizes are to be used  
 37        (see [3]). (The default LTU size is not applicable to  
 38        supplemental channels with multiplex options that use  
 39        MuxPDU Type 5; see [3]). The base station shall set this field  
 40        to '000' if MuxPDU Type 5 is not used on this channel (see  
 41        [3]).
- 42
- 43        RSCH1\_LTU\_TAB\_ID    - Reverse Supplemental Channel LTU Size-Table ID.

If USE\_OLD\_LTU\_MAPPING is included and is equal to '0', the base station shall include this field and set this field as follows; otherwise, the base station shall omit this field. If this field is included, the base station shall set this field to the LTU Table ID to be used for the Reverse Supplemental Channel 1. The base station shall set this field to '000' to indicate that the default number of LTUs sizes are to be used (see [3]). (The default LTU size is not applicable to supplemental channels with multiplex options that use MuxPDU Type 5; see [3]). The base station shall set this field to '000' if MuxPDU Type 5 is not used on this channel (see [3]).

#### USE\_OLD

PARTITION\_TABLES\_INFO\_INCL - Use the previously downloaded Partition Tables information included indicator.

If USE\_FLEX\_NUM\_BITS is equal to '0', the base station shall omit this field; otherwise, the base station shall include this field and set this field as follows:

If Partition Tables information is included in this message, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.

The base station shall include this field only if USE\_FLEX\_NUM\_BITS is equal to '1' and at least one of FPCH\_NBIT\_TABLE\_ID, RFCH\_NBIT\_TABLE\_ID, FDCCCH\_NBIT\_TABLE\_ID, or RDCCCH\_NBIT\_TABLE\_ID is not equal to '0000'. If this field is included, the base station shall set this field to '1' to indicate that the mobile station is to use the previously downloaded Partition Table. The base station shall set this field to '0' if the fields related to downloading the Partition Table are included in this message.

PARTITION\_TABLES\_INCL - Partition Tables included indicator.

If PARTITION\_TABLES\_INFO\_INCL is equal to '0', the base station shall omit this field; otherwise, the base station shall include this field and set this field as follows:

If the Partition Tables are included in this message, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.

If USE\_OLD\_PPARTITION\_TABLES\_INCL is included and is equal to '01', then the base station shall include the following fields

NUM-

PARTITION\_TABLES - Number of partition tables.

1           **If USE\_OLD\_PARTITION\_TABLE is equal to '0', then the base**  
 2           **station shall include this field. If this field is included, The**  
 3           **the** base station shall set this field to one less than the  
 4           number of Partition Tables corresponding to an FCH or DCCH  
 5           included in this message.

6       If **USE\_OLD\_PARTITION\_TABLES\_INCL** is included and is equal to '**01**', then the base  
 7       station shall include the NUM\_PARTITION\_TABLES + 1 occurrences of the following fields:

8       PARTITION\_TABLE\_ID   -   Partition Table ID.

9           The base station shall set this field to the ID of the Partition  
 10          Table that follows. **The base station shall not set this field to**  
 11          **'000'.**

12       NUM\_ROWS   -   Number of configurations associated with the Partition Table  
 13          identified by PARTITION\_TABLE\_ID.

14           The base station shall set this field to one less than the  
 15          number of rows of the Partition Table identified by  
 16          PARTITION\_TABLE\_ID.

17       If **USE\_OLD\_PARTITION\_TABLES\_INCL** is included and is equal to '**01**', then the base  
 18       station shall include NUM\_ROWS + 1 occurrences of the following fields:

19       CATEGORY   -   Category number.

20           The base station shall set this field to the category number of  
 21          the entry of the Partition Table identified by number of bits  
 22          per each service as specified below. The base station shall not  
 23          set this field to '00001' or '00010'. The base station shall  
 24          place rows of the Partition Table corresponding to the same  
 25          number of total information bits per frame consecutively. See  
 26          [3].

27       MUX\_HEADER\_LEN   -   Multiplex Sublayer Header Length.

28           The base station shall set this field to the length of the  
 29          multiplex sublayer header corresponding to the entry of the  
 30          Partition Table identified by number of bits per each service as  
 31          specified below.

32       MUX\_HEADER   -   Multiplex Sublayer Header.

33           The base station shall set this field to the multiplex sublayer  
 34          header corresponding to the entry of the Partition Table  
 35          identified by number of bits per each service as specified  
 36          below.<sup>7</sup>

---

<sup>7</sup> The values of the MUX HEADER corresponding to a specific number of bits per frame, shall be encoded using prefix-free codes. Prefix-free code is defined to be a code constructed so that any partial code word, beginning at the start of a code word but terminating prior to the end of that code word, is not a valid code word.

(footnote continued on next page)

1       NUM\_PARTITIONS   -   Number of partitions.  
 2                          The base station shall set this field to one less than the  
 3                          number of partitions corresponding to each service (including  
 4                          signaling) included in the entry of the Partition Table  
 5                          identified by CATEGORY.

6       If USE\_OLD\_PARTITION\_TABLES\_INCL is included and is equal to '10', then the base  
 7       station shall include NUM\_PARTITIONS + 1 occurrences of the following fields:

8                          SR\_ID   -   Service Reference ID.  
 9                          The base station shall set this field to the sr\_id of the service  
 10                         (sr\_id = '000' for signaling) present in this category.

11                         SRV\_NUM\_BITS   -   Number of bits allocated to the service.  
 12                         The base station shall set this field to the number of bits  
 13                         allocated to the service (including signaling) identified by  
 14                         SR\_ID.

15                         USE\_OLD-  
 16                         \_PART\_MAPPING   -   Use the previously downloaded mapping between the channels  
 17                         and Partition Tables.

18                         The base station shall include this field only if  
 19                         USE\_FLEX\_NUM\_BITS is equal to '1'  
 20                         PARTITION TABLES INFO INCL is equal to '1' and the base  
 21                         station shall set this field as follows; otherwise, the base  
 22                         station shall omit this field.

23                         and at least one of FFCH\_NBIT\_TABLE\_ID,  
 24                         RFCH\_NBIT\_TABLE\_ID, FDCCH\_NBIT\_TABLE\_ID, or  
 25                         RDCCH\_NBIT\_TABLE\_ID is not equal to '0000'. If this field is  
 26                         included, the The base station shall set this field to '1' to  
 27                         indicate that the mobile station is to use the previously  
 28                         downloaded mapping between the channels and Partition  
 29                         Tables. The base station shall set this field to '0', if the  
 30                         following four fields are included in this message.

31                         FFCH\_PART\_TAB\_ID   -   Forward Fundamental Channel Partition Table ID.  
 32                         If USE\_OLD\_PART\_MAPPING is included and is equal to '0',  
 33                         the base station shall include this field and set this field as  
 34                         follows; otherwise, the base station shall omit this field:

36                         . If this field is included, the The base station shall set this  
 37                         field to the Partition Table ID to be used for the Forward  
 38                         Fundamental Channel. The base station shall set this field to  
 39                         '000' to indicate that the default number of bits per service is

|    |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|----|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    |                   | to be used (see MuxPDU Type 1 and 2 Categories and Formats for the FCH and DCCH in [3]). The base station shall set this field to a value other than '000' if the FFCH_NBIT_TABLE_ID field <u>is included in this message and</u> is not set to '0000'.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 5  | RFCH_PART_TAB_ID  | - Reverse Fundamental Channel Partition Table ID.<br><br>If USE_OLD_PART_MAPPING is <u>included and is</u> equal to '0', the base station shall include this field <u>and set this field as follows; otherwise, the base station shall omit this field:</u><br><br><u>If this field is included, the</u> The base station shall set this field to the Partition Table ID to be used for the Reverse Fundamental Channel. The base station shall set this field to '000' to indicate that the default number of bits per service is to be used (see MuxPDU Type 1 and 2 Categories and Formats for the FCH and DCCH in [3]). The base station shall set this field to a value other than '000' if the RFCH_NBIT_TABLE_ID <u>is included in this message and</u> field is not set to '0000'.              |
| 17 | FDCCH_PART_TAB_ID | - Forward Dedicated Control Channel Partition Table ID.<br><br>If USE_OLD_PART_MAPPING is <u>included and is</u> equal to '0', the base station shall include this field <u>and set this field as follows; otherwise, the base station shall omit this field:</u><br><br><u>If this field is included, the</u> The base station shall set this field to the Partition Table ID to be used for the Forward Dedicated Control Channel. The base station shall set this field to '000' to indicate that the default number of bits per service is to be used (see MuxPDU Type 1 and 2 Categories and Formats for the FCH and DCCH in [3]). The base station shall set this field to a value other than '000' if the FDCCH_NBIT_TABLE_ID field <u>is included in this message and</u> is not set to '0000'. |
| 30 | RDCCH_PART_TAB_ID | - Reverse Dedicated Control Channel Partition Table ID.<br><br>If USE_OLD_PART_MAPPING is <u>included and is</u> equal to '0', the base station shall include this field <u>and set this field as follows; otherwise, the base station shall omit this field:</u><br><br><u>If this field is included, the</u> The base station shall set this field to the Partition Table ID to be used for the Reverse Dedicated Control Channel. The base station shall set this field to '000' to indicate that the default number of bits per service is to be used (see MuxPDU Type 1 and 2 Categories and Formats for the FCH and DCCH in [3]). The base station shall set this field to a value other than '000' if the RDCCH_NBIT_TABLE_ID field <u>is included in this message and</u>                       |

1                   is not set to '0000'.

2           RESERVED   -   Reserved bits.

3                   The base station shall add reserved bits as needed in order to  
4                   make the length of the entire record equal to an integer  
5                   number of octets. The base station shall set these bits to '0'.

1    3.7.5.21 Multiple Character Extended Display

2    This information record allows the network to supply supplementary service multiple  
3    character display information that may be displayed by the mobile station.

4

| Type-Specific Field | Length (bits) |
|---------------------|---------------|
| MC_EXT_DISPLAY_IND  | 1             |
| DISPLAY_TYPE        | 7             |

One or more occurrences of the following record:

|             |   |
|-------------|---|
| DISPLAY_TAG | 8 |
| NUM_RECORD  | 8 |

NUM\_RECORD occurrences of the following record if the  
DISPLAY\_TAG field is not equal to '10000000' or  
'10000001':

|                  |   |
|------------------|---|
| DISPLAY_ENCODING | 8 |
| NUM_FIELDS       | 8 |

NUM\_FIELDS occurrences of the following field:

|       |          |
|-------|----------|
| CHARi | Variable |
|-------|----------|

|          |                   |
|----------|-------------------|
| RESERVED | 0 - 7 (as needed) |
|----------|-------------------|

5

6    MC\_EXT\_DISPLAY\_IND    -    The indicator of Multiple Character Extended Display  
7    information record.

8                             The base station shall set this field to '1'.

9    DISPLAY\_TYPE    -    The type of display.

10                          The base station shall set this field to the DISPLAY\_TYPE  
11                          value shown in Table 3.7.5.16-1 corresponding to the type of  
12                          display, as defined in [8] Annex D.

13    DISPLAY\_TAG    -    The indicator of the display information.

14                          There are three types of display tags: mandatory control tags  
15                          (Blank and Skip), display text tags, and optional control tags,  
16                          see [8] Annex D.

17                          The base station shall set this field to the DISPLAY\_TAG value  
18                          shown in Table 3.7.5.16-2 corresponding to the type of  
19                          information contained in the following CHARi field, as defined  
20                          in [8] Annex D.

21    NUM\_RECORD    -    The number of records displaying.

22                          The base station shall set this field to the number of records  
23                          of display text.

1 DISPLAY\_ENCODING - Display encoding.

2 See [30].

3 Support of an encoding method does not imply that the entire  
4 encodable character set must be supported. In general, once  
5 the supported character set is determined, various subsets of  
6 the character set can be supported. If a message is comprised  
7 entirely of characters from a supported subset of a character  
8 set, it can be displayed. If a message contains an  
9 unsupported character of a character set, it can be discarded.

10 NUM\_FIELDS - Number of occurrences of the CHARi field.

11 The base station shall set this field to the number of  
12 characters included in this record.

13 CHARi - Character.

14 The base station shall include NUM\_FIELDS occurrences of  
15 this field, one for each character to be displayed, except for  
16 blank and skip.

17 RESERVED - Reserved bits.

18 The base station shall add reserved bits as needed in order to  
19 make the length of the entire record equal to an integer  
20 number of octets. The base station shall set these bits to '0'.

1    3.7.5.22 Call Waiting Indicator

2    This information record allows the base station to inform the mobile station that a call  
 3    waiting call is available. This indicator may be used to suppress the generation of the local  
 4    dial tone in mobile stations that provide locally generated dial tone.

5

| Type-Specific Field    | Length (bits) |
|------------------------|---------------|
| CALL_WAITING_INDICATOR | 1             |
| RESERVED               | 7             |

6

7    CALL\_WAITING-

- 8        \_INDICATOR    -    Call waiting indicator.  
 9                  The base station shall set this field to a '1' to indicate to the  
 10          mobile station that a call is waiting. The base station shall set  
 11          this field to a '0' if the call waiting call is not answered by the  
 12          mobile station and the call waiting call goes away.
- 13        RESERVED    -    Reserved bits.  
 14                  The base station shall set this field to '0000000'.

## 1    3.7.6 Information Elements

## 2    3.7.6.1 Pilot Record Type Specific Fields

3    If PILOT\_REC\_TYPE is equal to '000', the Pilot Record Type Specific fields include the  
 4    following fields:

5

| <b>Field</b>   | <b>Length (bits)</b> |
|----------------|----------------------|
| TD_POWER_LEVEL | 2                    |
| TD_MODE        | 2                    |
| RESERVED       | 4                    |

6

7    TD\_POWER\_LEVEL - TD transmit power level.

8                  The base station or mobile station shall set this field to the TD  
 9                  transmit power level relative to that of the Forward Pilot  
 10                 Channel, as specified in Table 3.7.6.1-1.

11

**Table 3.7.6.1-1. TD Transmit Power Level**

| <b>TD_POWER_LEVEL</b> | <b>Transmit Power Level</b>                            |
|-----------------------|--------------------------------------------------------|
| 00                    | 9 dB below the Forward Pilot<br>Channel transmit power |
| 01                    | 6 dB below the Forward Pilot<br>Channel transmit power |
| 10                    | 3 dB below the Forward Pilot<br>Channel transmit power |
| 11                    | Same as the Forward Pilot<br>Channel transmit power    |

12

13    TD\_MODE - Transmit Diversity mode.

14                  The base station or mobile station shall set this field to the  
 15                 Transmit Diversity mode, as specified in Table 3.7.6.1-2.

**Table 3.7.6.1-2. TD Mode**

| <b>TD_MODE</b> | <b>Descriptions</b>                      |
|----------------|------------------------------------------|
| 00             | OTD (Orthogonal Transmit Diversity) mode |
| 01             | STS (Space Time Spreading) mode          |
| 10-11          | Reserved                                 |

- RESERVED - Reserved bits.  
The base station or mobile station shall set this field to '000000'.

If PILOT\_REC\_TYPE is equal to '001', the base station or mobile station shall include the following fields:

| <b>Field</b>    | <b>Length (bits)</b> |
|-----------------|----------------------|
| QOF             | 2                    |
| WALSH_LENGTH    | 3                    |
| AUX_PILOT_WALSH | WALSH_LENGTH+6       |
| RESERVED        | 0 to 7 (as needed)   |

- QOF - Quasi-orthogonal function index.  
The base station or mobile station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]).
- WALSH\_LENGTH - Length of the Walsh Code.  
The base station or mobile station shall set this field to the WALSH\_LENGTH value shown in Table 3.7.6.1-3 corresponding to the length of the Walsh code for the pilot that is used as the Auxiliary pilot.

**Table 3.7.6.1-3. Walsh Code Length**

| <b>WALSH_LENGTH<br/>(binary)</b> | <b>Length of the Walsh<br/>Code</b> |
|----------------------------------|-------------------------------------|
| '000'                            | 64                                  |
| '001'                            | 128                                 |
| '010'                            | 256                                 |
| '011'                            | 512                                 |
| '100' – '111'                    | Reserved                            |

- AUX\_PILOT\_WALSH - Walsh Code for the Auxiliary Pilot.  
The base station or mobile station shall set this field to the Walsh code corresponding to the Auxiliary pilot.
- RESERVED - Reserved bits.  
The base station or mobile station shall set all the bits of this field to '0' to make the entire record octet-aligned.
- If PILOT\_REC\_TYPE is equal to '010', the base station or mobile station shall include the following fields:

| <b>Field</b>       | <b>Length (bits)</b> |
|--------------------|----------------------|
| QOF                | 2                    |
| WALSH_LENGTH       | 3                    |
| AUX_WALSH          | WALSH_LENGTH+6       |
| AUX_TD_POWER_LEVEL | 2                    |
| TD_MODE            | 2                    |
| RESERVED           | 0 to 7 (as needed)   |

- QOF - Quasi-orthogonal function index for the Auxiliary Transmit Diversity Pilot.  
The base station or mobile station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]).
- WALSH\_LENGTH - Length of the Walsh code.  
The base station or mobile station shall set this field to the WALSH\_LENGTH value shown in 3.7.6.1-3 corresponding to the length of the Walsh code for the pilots that are used as Auxiliary pilot in the transmit diversity mode.
- AUX\_WALSH - Walsh Code for the Auxiliary Pilot.

The base station or mobile station shall set this field to the Walsh code corresponding to the Auxiliary Pilot.

AUX\_TD-

## \_POWER\_LEVEL

- Auxiliary Transmit Diversity Pilot Power Level.

The base station or mobile station shall set this field to the Auxiliary Transmit Diversity Pilot transmit power level relative to that of the Auxiliary Pilot as specified in Table 3.7.6.1-4.

**Table 3.7.6.1-4. Auxiliary Transmit Diversity Pilot Transmit Power Level**

| <b>AUX_TD_POWER_LEVEL</b> | <b>Transmit Power Level</b>                           |
|---------------------------|-------------------------------------------------------|
| 00                        | 9 dB below the Auxiliary Pilot Channel transmit power |
| 01                        | 6 dB below the Auxiliary Pilot Channel transmit power |
| 10                        | 3 dB below the Auxiliary Pilot Channel transmit power |
| 11                        | Same as the Auxiliary Pilot Channel transmit power    |

## TD MODE

- Transmit Diversity mode.

The base station or mobile station shall set this field to the Transmit Diversity mode, as specified in Table 3.7.6.1-2.

**RESERVED**

- Reserved bits.

The base station or mobile station shall set all the bits of this field to '0' to make the entire record octet-aligned.

If PILOT\_REC\_TYPE is equal to '011', the base station or mobile station shall include the following fields:

| <b>Field</b>      | <b>Length (bits)</b> |
|-------------------|----------------------|
| SR3_PRIMARY_PILOT | 2                    |
| SR3_PILOT_POWER1  | 3                    |
| SR3_PILOT_POWER2  | 3                    |

SR3 PRIMARY PILOT

- Primary SR3 pilot.

The base station or mobile station shall set this field to the value shown in Table 3.7.6.1-5 corresponding to the position of the primary SR3 pilot.

**Table 3.7.6.1-5. The Position of the Primary SR3 Pilot**

| <b>SR3_PRIMARY_PILOT<br/>(Binary)</b> | <b>Position</b>                                   |
|---------------------------------------|---------------------------------------------------|
| 00                                    | The primary pilot is on the lowest SR3 frequency  |
| 01                                    | The primary pilot is on the center SR3 frequency  |
| 10                                    | The primary pilot is on the highest SR3 frequency |
| 11                                    | Reserved                                          |

- SR3\_PILOT\_POWER1
- The primary SR3 pilot power level relative to that of the pilot on the lower frequency of the two remaining SR3 frequencies.

The base station or mobile station shall set this field to the value shown in Table 3.7.6.1-6 corresponding to the power level of the primary pilot with respect to the pilot on the lower frequency of the two remaining SR3 frequencies.

**Table 3.7.6.1-6. Pilot Transmission Power**

| <b>SR3_PILOT_POWER1,<br/>SR3_PILOT_POWER2<br/>(Binary)</b> | <b>Relative Transmission Power</b> |
|------------------------------------------------------------|------------------------------------|
| 000                                                        | 0dB                                |
| 001                                                        | 1dB                                |
| 010                                                        | 2dB                                |
| 011                                                        | 3dB                                |
| 100                                                        | 4dB                                |
| 101                                                        | 5dB                                |
| 110                                                        | 6dB                                |
| 111                                                        | 7dB                                |

- SR3\_PILOT\_POWER2
- The primary SR3 pilot power level relative to that of the pilot on the higher frequency of the two remaining SR3 frequencies.

The base station or mobile station shall set this field to the value shown in Table 3.7.6.1-6 corresponding to the power level of the primary pilot with respect to the pilot on the higher frequency of the two remaining SR3 frequencies.

1

2 If PILOT\_REC\_TYPE is equal to '100', the base station or mobile station shall include the  
 3 following fields:

4

| <b>Field</b>      | <b>Length (bits)</b>    |
|-------------------|-------------------------|
| SR3_PRIMARY_PILOT | 2                       |
| SR3_PILOT_POWER1  | 3                       |
| SR3_PILOT_POWER2  | 3                       |
| QOF               | 2                       |
| WALSH_LENGTH      | 3                       |
| AUX_PILOT_WALSH   | WALSH_LENGTH+6          |
| ADD_INFO_INCL1    | 1                       |
| QOF1              | 0 or 2                  |
| WALSH_LENGTH1     | 0 or 3                  |
| AUX_PILOT_WALSH1  | 0 or<br>WALSH_LENGTH1+6 |
| ADD_INFO_INCL2    | 1                       |
| QOF2              | 0 or 2                  |
| WALSH_LENGTH2     | 0 or 3                  |
| AUX_PILOT_WALSH2  | 0 or<br>WALSH_LENGTH2+6 |
| RESERVED          | 0 – 7 (as needed)       |

5

- 6 SR3\_PRIMARY\_PILOT – Primary SR3 pilot.  
 7 The base station or mobile station shall set this field to the  
 8 value shown in Table 3.7.6.1-5 corresponding to the position  
 9 of the primary SR3 pilot.
- 10 SR3\_PILOT\_POWER1 – The primary SR3 pilot power level relative to that of the pilot  
 11 on the lower frequency of the two remaining SR3 frequencies.  
 12 The base station or mobile station shall set this field to the  
 13 value shown in Table 3.7.6.1-6 corresponding to the power  
 14 level of the primary pilot with respect to the pilot on the lower  
 15 frequency of the two remaining SR3 frequencies.
- 16 SR3\_PILOT\_POWER2 – The primary SR3 pilot power level relative to that of the pilot  
 17 on the higher frequency of the two remaining SR3 frequencies.  
 18 The base station or mobile station shall set this field to the  
 19 value shown in Table 3.7.6.1-6 corresponding to the power  
 20 level of the primary pilot with respect to the pilot on the  
 21 higher frequency of the two remaining SR3 frequencies.

- 1                   QOF     - Quasi-orthogonal function index.  
 2                   The base station or mobile station shall set this field to the  
 3                   index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2  
 4                   of [2]) on the frequency of the primary pilot.
- 5                   WALSH\_LENGTH     - Length of the Walsh Code.  
 6                   The base station or mobile station shall set this field to the  
 7                   WALSH\_LENGTH value shown in Table 3.7.6.1-3  
 8                   corresponding to the length of the Walsh code for the pilot  
 9                   that is used as the Auxiliary pilot on the frequency of the  
 10                  primary pilot.
- 11                  AUX\_PILOT\_WALSH     - Walsh Code for the Auxiliary Pilot.  
 12                  The base station or mobile station shall set this field to the  
 13                  Walsh code corresponding to the Auxiliary pilot on the  
 14                  frequency of the primary pilot.
- 15                  ADD\_INFO\_INCL1     - Additional information included for the pilot on the lower  
 16                  frequency of the two remaining SR3 frequencies.  
 17                  If the additional information for the pilot on the lower  
 18                  frequencies of the two remaining SR3 frequencies is the same  
 19                  as pilot on the primary frequency, the base station or mobile  
 20                  station shall set this field to '0'; otherwise, the base station or  
 21                  mobile station shall set this field to '1'.
- 22                  QOF1     - Quasi-orthogonal function index for the pilot on the lower  
 23                  frequency of the two remaining SR3 frequencies.  
 24                  If ADD\_INFO\_INCL1 is set to '0', the base station or mobile  
 25                  station shall omit this field; otherwise, the base station or  
 26                  mobile station shall set this field as follows:  
 27                  The base station or mobile station shall set this field to the  
 28                  index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2  
 29                  of [2]) on the lower frequency of the two remaining SR3  
 30                  frequencies.
- 31                  WALSH\_LENGTH1     - Length of the Walsh Code for the pilot on the lower frequency  
 32                  of the two remaining SR3 frequencies.  
 33                  If ADD\_INFO\_INCL1 is set to '0', the base station or mobile  
 34                  station shall omit this field; otherwise, the base station or  
 35                  mobile station shall set this field as follows:  
 36                  The base station or mobile station shall set this field to the  
 37                  WALSH\_LENGTH value shown in Table 3.7.6.1-3  
 38                  corresponding to the length of the Walsh code for the pilot  
 39                  that is used as the Auxiliary pilot on the lower frequency of  
 40                  the two remaining SR3 frequencies.
- 41                  AUX\_PILOT\_WALSH1     - Walsh Code for the Auxiliary Pilot on the lower frequency of  
 42                  the two remaining SR3 frequencies.  
 43                  If ADD\_INFO\_INCL1 is set to '0', the base station or mobile  
 44                  station shall omit this field; otherwise, the base station or  
 45                  mobile station shall set this field as follows:

|    |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|----|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  |                  | The base station or mobile station shall set this field to the Walsh code corresponding to the Auxiliary pilot on the lower frequency of the two remaining SR3 frequencies.                                                                                                                                                                                                                                                                                                                                                                                             |
| 2  |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 3  |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 4  | ADD_INFO_INCL2   | - Additional information included for the pilot on the higher frequency of the two remaining SR3 frequencies.<br><br>If the additional information for the pilot on the higher frequencies of the two remaining SR3 frequencies is the same as pilot on the primary frequency, the base station or mobile station shall set this field to '0'; otherwise, the base station or mobile station shall set this field to '1'.                                                                                                                                               |
| 5  |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 6  |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 7  |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 8  |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 9  |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 10 |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 11 | QOF2             | - Quasi-orthogonal function index for the pilot on the higher frequency of the two remaining SR3 frequencies.<br><br>If ADD_INFO_INCL2 is set to '0', the base station or mobile station shall omit this field; otherwise, the base station or mobile station shall set this field as follows:<br><br>The base station or mobile station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]) on the higher frequency of the two remaining SR3 frequencies.                                                               |
| 12 |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 13 |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 14 |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 15 |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 16 |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 17 |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 18 |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 19 |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 20 | WALSH_LENGTH2    | - Length of the Walsh Code for the pilot on the higher frequency of the two remaining SR3 frequencies.<br><br>If ADD_INFO_INCL2 is set to '0', the base station or mobile station shall omit this field; otherwise, the base station or mobile station shall set this field as follows:<br><br>The base station or mobile station shall set this field to the WALSH_LENGTH value shown in Table 3.7.6.1-3 corresponding to the length of the Walsh code for the pilot that is used as the Auxiliary pilot on the higher frequency of the two remaining SR3 frequencies. |
| 21 |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 22 |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 23 |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 24 |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 25 |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 26 |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 27 |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 28 |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 29 |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 30 | AUX_PILOT_WALSH2 | - Walsh Code for the Auxiliary Pilot on the higher frequency of the two remaining SR3 frequencies.<br><br>If ADD_INFO_INCL2 is set to '0', the base station or mobile station shall omit this field; otherwise, the base station or mobile station shall set this field as follows:<br><br>The base station or mobile station shall set this field to the Walsh code corresponding to the Auxiliary pilot on the higher frequency of the two remaining SR3 frequencies.                                                                                                 |
| 31 |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 32 |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 33 |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 34 |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 35 |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 36 |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 37 |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 38 | RESERVED         | - Reserved bits.<br><br>The base station or mobile station shall set all the bits of this field to '0' to make the entire record octet-aligned.                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 39 |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 40 |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

1

2 No text.

3

**1 ANNEX A RESERVED**

1

2     No text.

3

1   **ANNEX B CDMA CALL FLOW EXAMPLES**

2   This is an informative annex which contains examples of call flow. The diagrams follow  
 3   these conventions:

- 4     • All messages are received without error
- 5     • Receipt of messages is not shown except in the handoff examples
- 6     • Acknowledgments are not shown
- 7     • Optional authentication procedures are not shown
- 8     • Optional private long code transitions are not shown

9   For the call flow diagrams B-22 through B-31, the following conventions hold:

- 10    • The following message acronyms are defined:

11      ERRM: Extended Release Response Message

12      ERRMM: Extended Release Response Mini Message

13      RRM: Resource Request Message

14      RRMM: Resource Request Mini Message

15      RRRM: Resource Release Request Message

16      RRRMM: Resource Release Request Mini Message

17      SreqM: Service Request Message

18      SCRM: Supplemental Channel Request Message

19      SCRMM: Supplemental Channel Request Mini Message

20      ERM: Extended Release Message

21      ERMM: Extended Release Mini Message

22      RAM: Resource Allocation Message

23      RAMM: Resource Allocation Mini Message

24      SCM: Service Connect Message

25      GHDM: General Handoff Direction Message

26      UHDM: Universal Handoff Direction Message

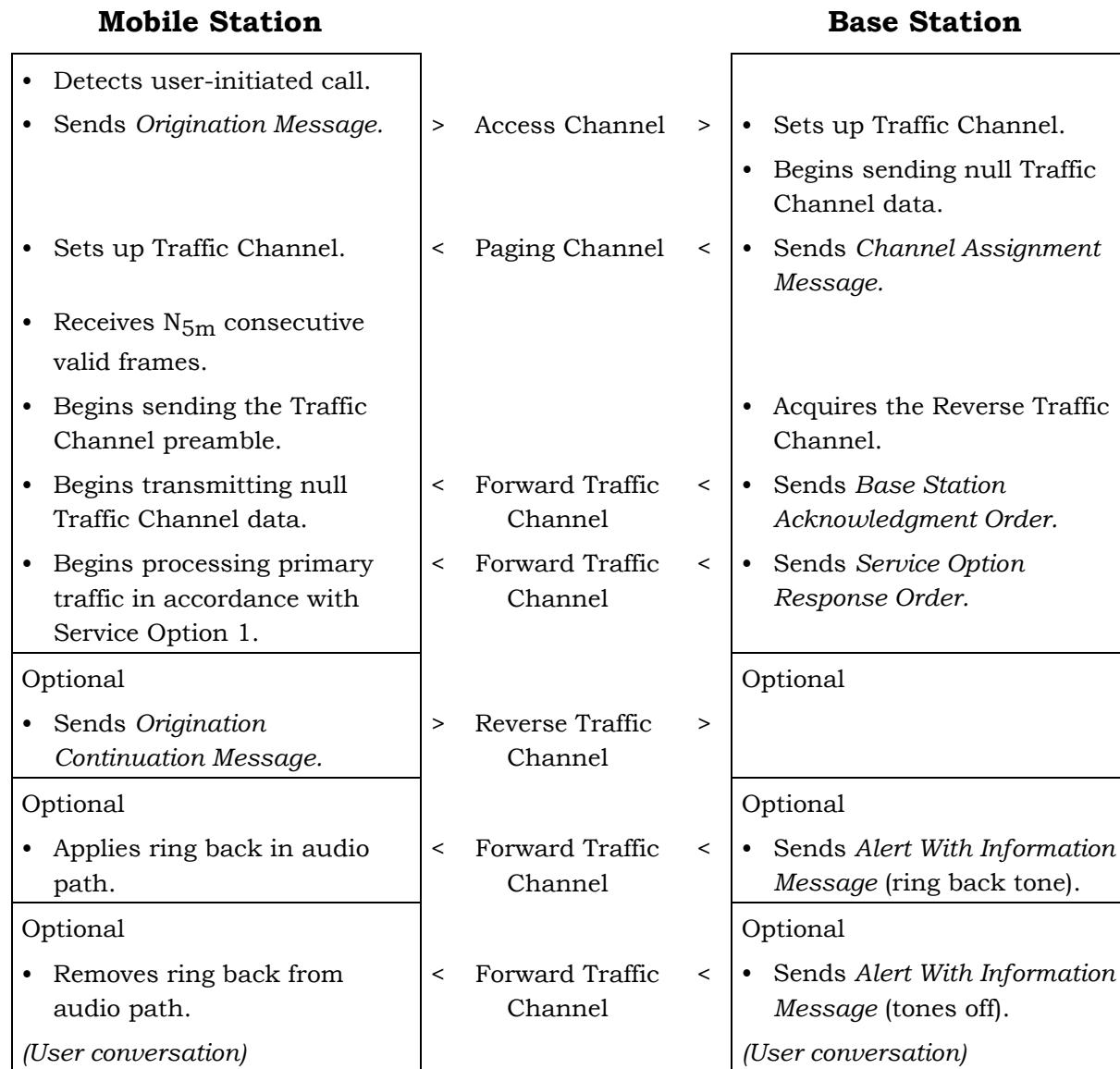
27      ESCAM: Extended Supplemental Channel Assignment Message

28      FSCAMM: Forward Supplemental Channel Assignment Mini Message

1 RSCAMM: Reverse Supplemental Channel Assignment Mini Message

2 HCM: (Extended) Handoff Complete Message

3

4 **Figure B-1A. Simple Call Flow, Mobile Station Origination Example Using  
5 Service Option Negotiation with Service Option 1**

1

| <b>Mobile Station</b>                                                                                                                                                                                                                                                                                                                                                                         |   |                         | <b>Base Station</b>                                                                                                           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>Detects user-initiated call.</li> <li>Sends <i>Origination Message</i>.</li> </ul>                                                                                                                                                                                                                                                                     | > | Access Channel          | <ul style="list-style-type: none"> <li>Sets up Traffic Channel.</li> <li>Begins sending null Traffic Channel data.</li> </ul> |
| <ul style="list-style-type: none"> <li>Sets up Traffic Channel.</li> <li>Receives N<sub>5m</sub> consecutive valid frames.</li> <li>Begins sending the Traffic Channel preamble.</li> <li>Begins transmitting null Traffic Channel data.</li> <li>Begins processing primary traffic in accordance with Service Option 1.</li> <li>Sends <i>Service Connect Completion Message</i>.</li> </ul> | < | Paging Channel          | <ul style="list-style-type: none"> <li>Sends <i>Channel Assignment Message</i>.</li> </ul>                                    |
| Optional                                                                                                                                                                                                                                                                                                                                                                                      | < | Forward Traffic Channel | <ul style="list-style-type: none"> <li>Acquires the Reverse Traffic Channel.</li> </ul>                                       |
| <ul style="list-style-type: none"> <li>Sends <i>Origination Continuation Message</i>.</li> </ul>                                                                                                                                                                                                                                                                                              | < | Forward Traffic Channel | <ul style="list-style-type: none"> <li>Sends <i>Base Station Acknowledgment Order</i>.</li> </ul>                             |
| Optional                                                                                                                                                                                                                                                                                                                                                                                      | > | Reverse Traffic Channel | <ul style="list-style-type: none"> <li>Sends <i>Service Connect Message</i>.</li> </ul>                                       |
| (User conversation)                                                                                                                                                                                                                                                                                                                                                                           | > | Reverse Traffic Channel | Optional                                                                                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                               | > | Reverse Traffic Channel |                                                                                                                               |
|                                                                                                                                                                                                                                                                                                                                                                                               | < | Forward Traffic Channel | Optional                                                                                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                               | < | Forward Traffic Channel | <ul style="list-style-type: none"> <li>Sends <i>Alert With Information Message</i> (ring back tone).</li> </ul>               |
|                                                                                                                                                                                                                                                                                                                                                                                               | < | Forward Traffic Channel | Optional                                                                                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                               |   |                         | <ul style="list-style-type: none"> <li>Sends <i>Alert With Information Message</i> (tones off).</li> </ul>                    |
|                                                                                                                                                                                                                                                                                                                                                                                               |   |                         | (User conversation)                                                                                                           |

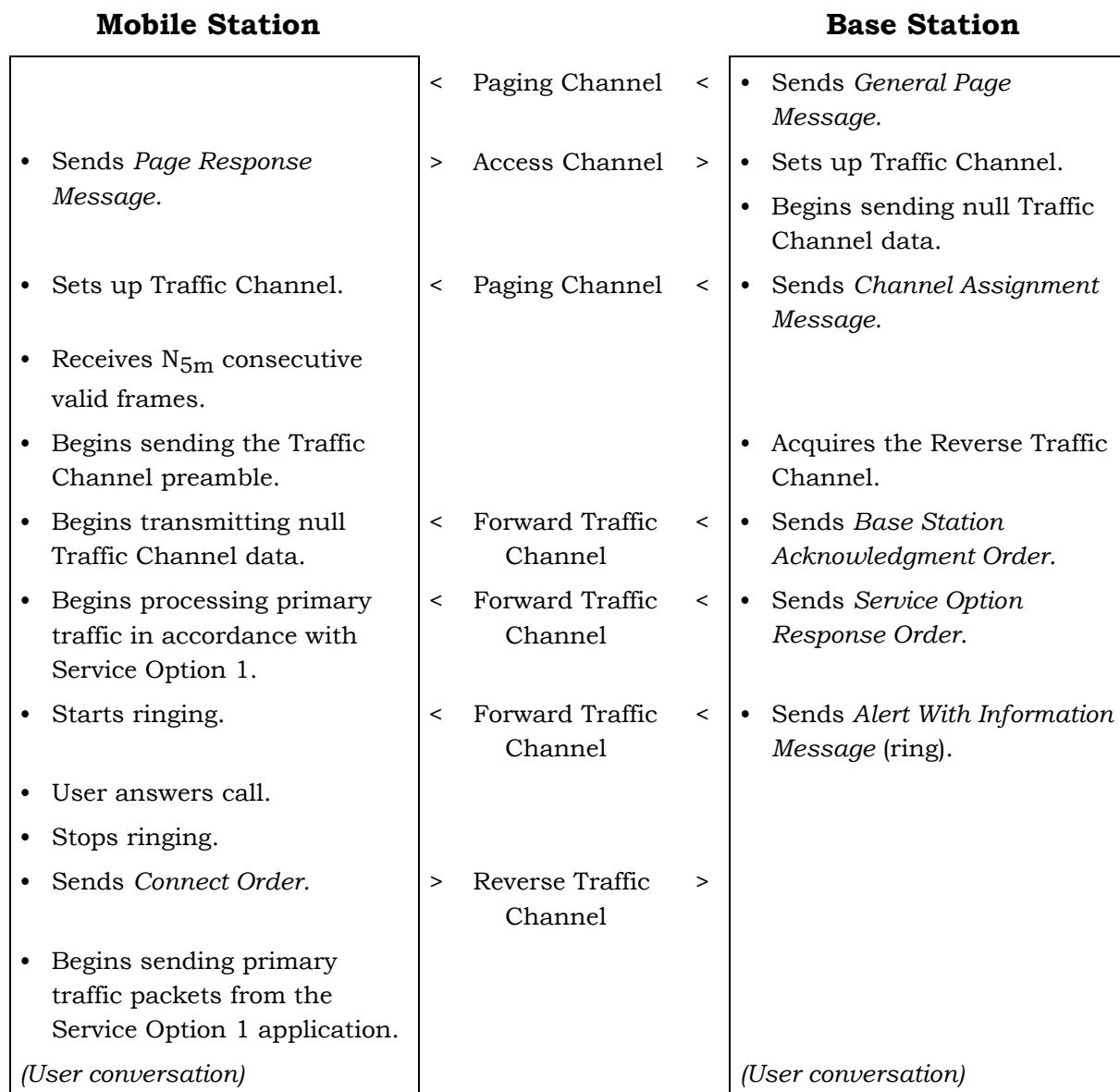
2

**Figure B-1B. Simple Call Flow, Mobile Station Origination Example Using Service Negotiation with Service Option 1**

3

4

1

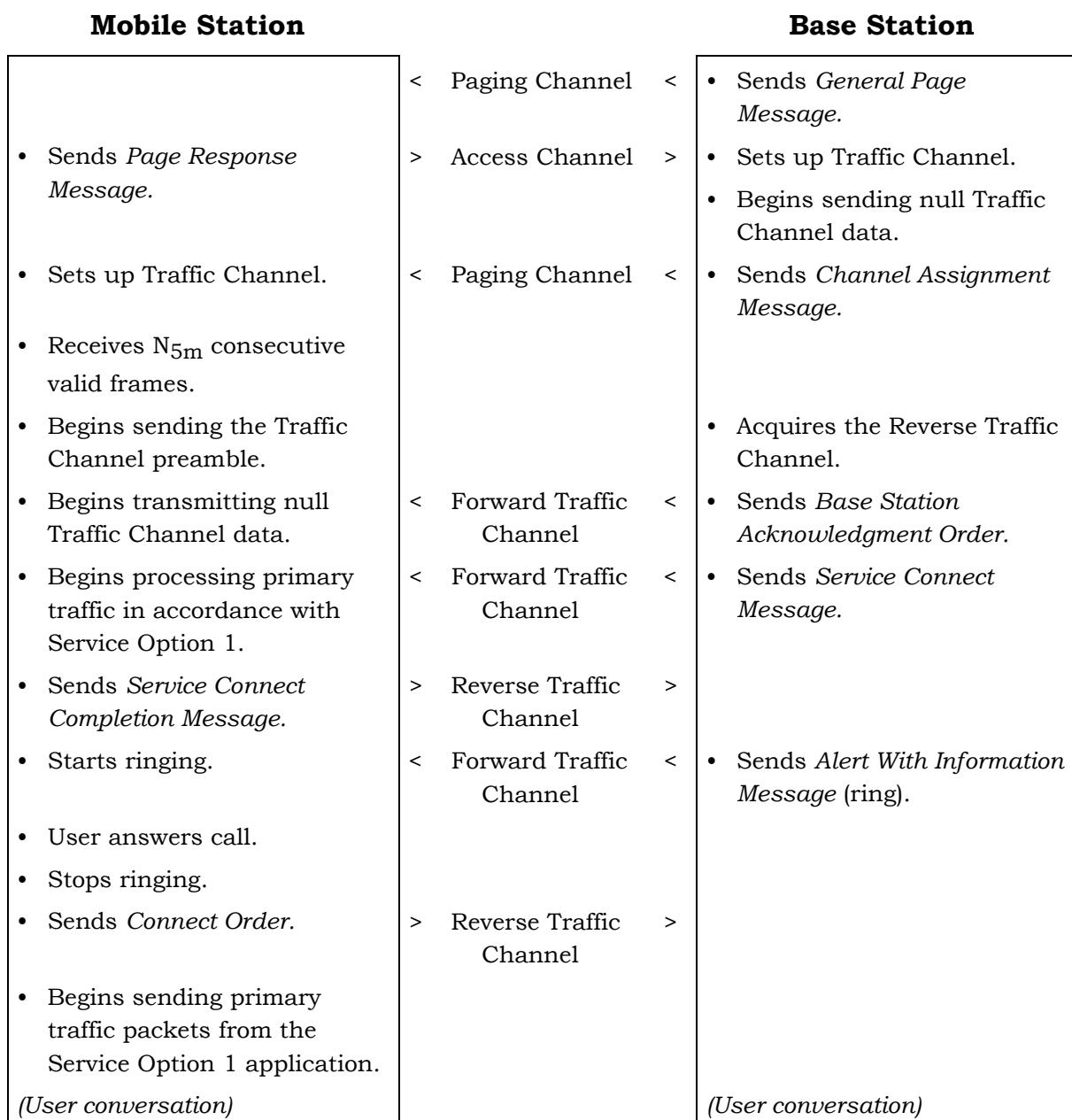


**Figure B-2A. Simple Call Flow, Mobile Station Termination Example Using Service Option Negotiation with Service Option 1**

2

3

1

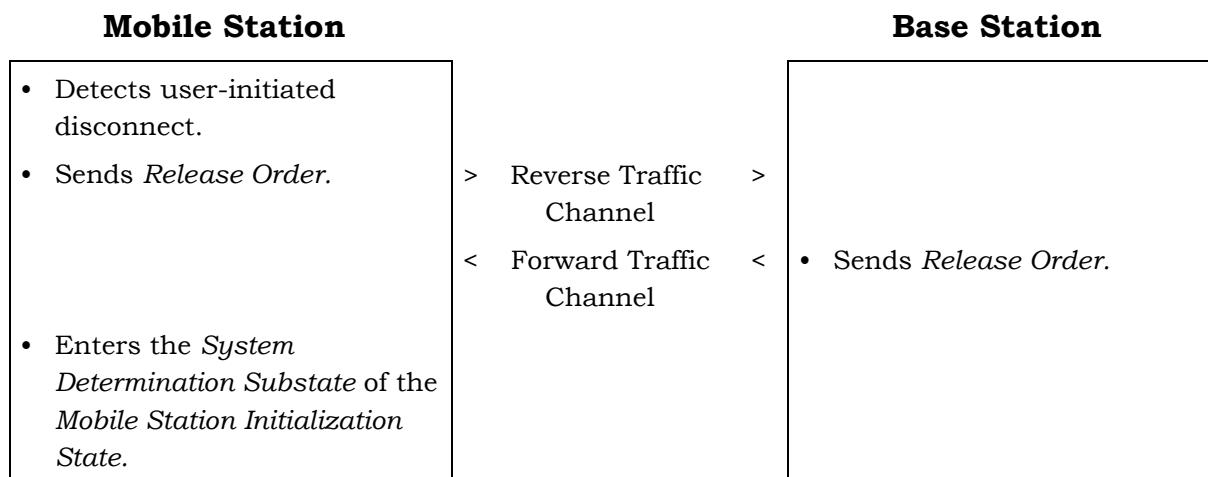


2

**Figure B-2B. Simple Call Flow, Mobile Station Termination Example Using Service Negotiation with Service Option 1**

3

1

2 **Figure B-3. Simple Call Flow, Mobile Station Initiated Call Disconnect Example**

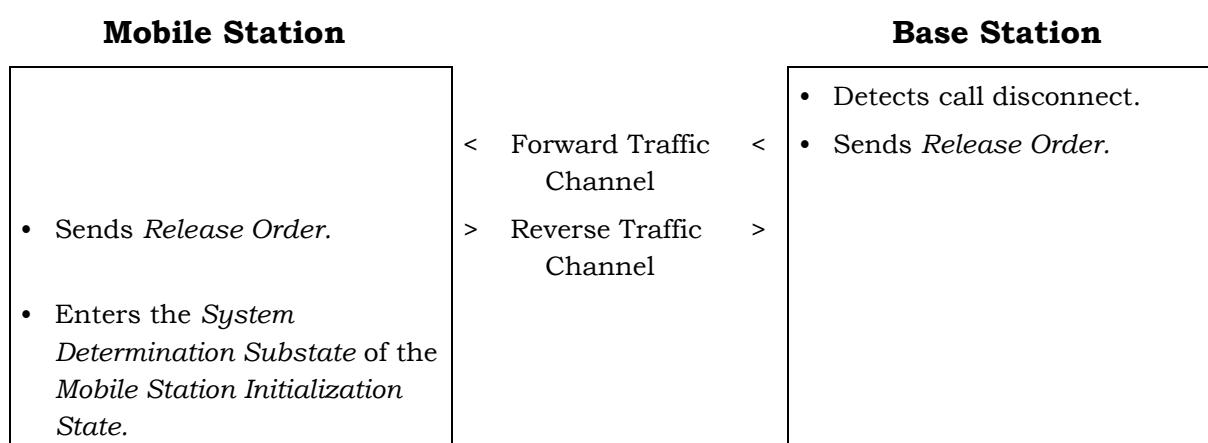
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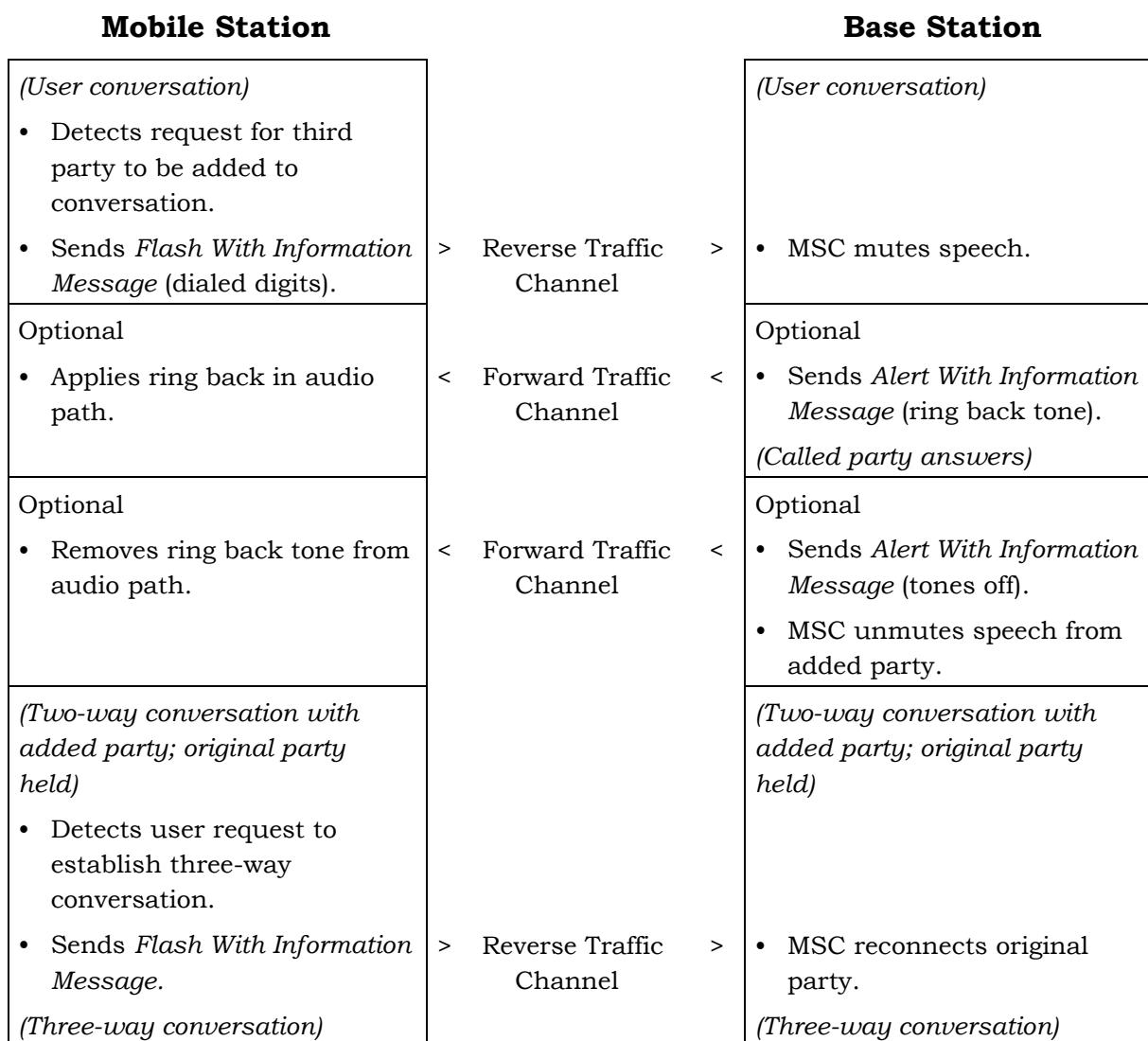
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6

7

8 **Figure B-4. Simple Call Flow, Base Station Initiated Call Disconnect Example**

1



2

**Figure B-5. Simple Call Flow, Three-Party Calling Example**

1

**Mobile Station**

|                                                                                                                                                 |                                                                                                                |
|-------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| <i>(User conversation with first party)</i>                                                                                                     |                                                                                                                |
| Optional                                                                                                                                        | < Forward Traffic Channel                                                                                      |
| <ul style="list-style-type: none"> <li>Applies call waiting tone in audio path.</li> </ul>                                                      | > Reverse Traffic Channel                                                                                      |
| <i>(User conversation with second party; first party held)</i>                                                                                  |                                                                                                                |
| <ul style="list-style-type: none"> <li>Detects user request to change parties.</li> <li>Sends <i>Flash With Information Message</i>.</li> </ul> | <ul style="list-style-type: none"> <li>MSC mutes speech path to first party, connects second party.</li> </ul> |
| <i>(User conversation with first party; second party held)</i>                                                                                  |                                                                                                                |

**Base Station**

|                                                                |                                                                                                                             |
|----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| <i>(User conversation with first party)</i>                    |                                                                                                                             |
|                                                                | <ul style="list-style-type: none"> <li>Detects incoming call.</li> </ul>                                                    |
| Optional                                                       | <ul style="list-style-type: none"> <li>Sends <i>Alert or Flash With Information Message</i> (call waiting tone).</li> </ul> |
| <i>(User conversation with second party; first party held)</i> |                                                                                                                             |
|                                                                | <ul style="list-style-type: none"> <li>MSC mutes speech path to second party, connects first party.</li> </ul>              |
| <i>(User conversation with first party; second party held)</i> |                                                                                                                             |

**Figure B-6. Simple Call Flow, Call-Waiting Example**

2

3

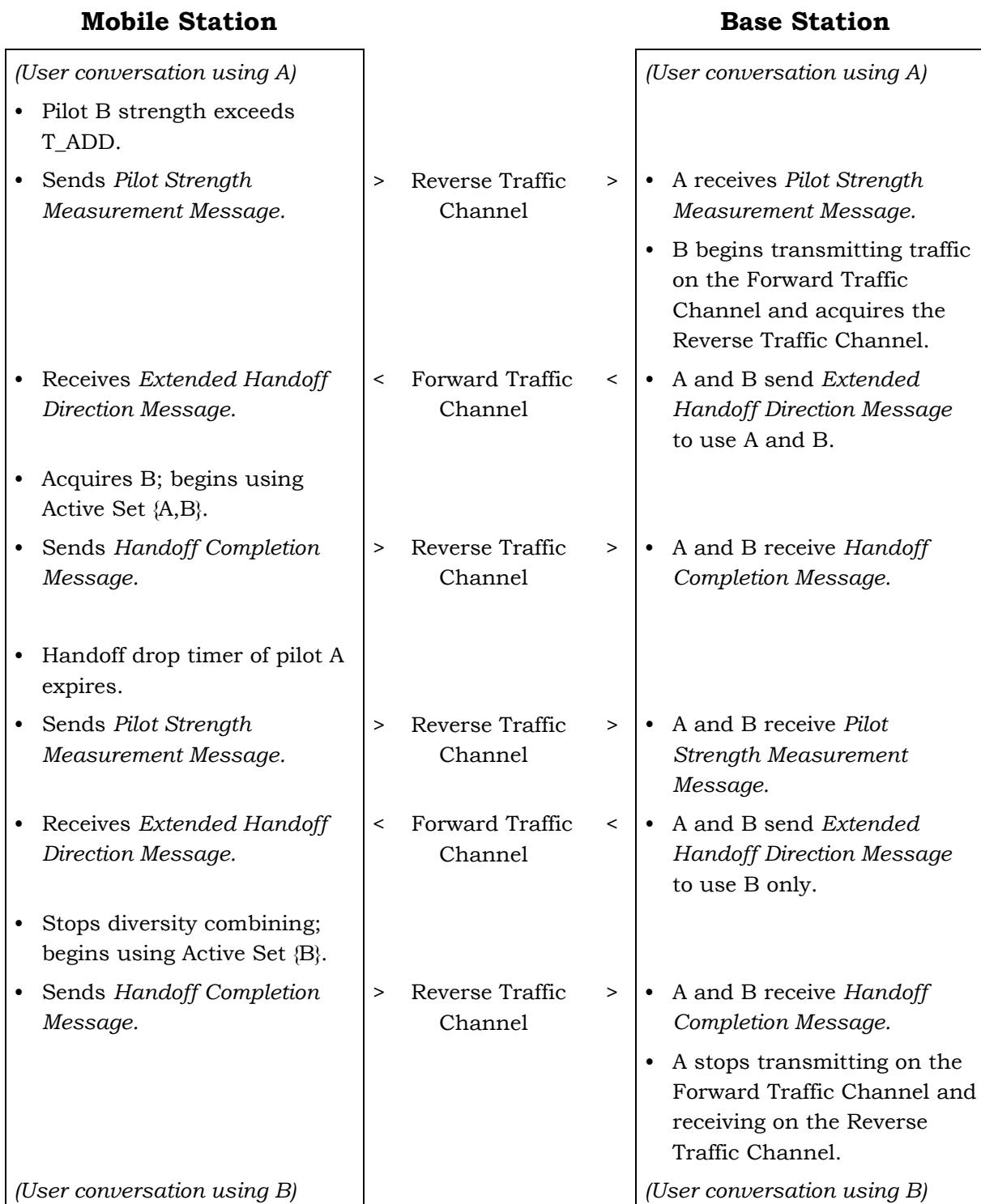
4

5

6 Figure B-7 illustrates call processing operations during a soft handoff from base station A  
7 to base station B. Figure B-8 illustrates call processing operations during a sequential soft  
8 handoff in which the mobile station is transferred from a pair of base stations A and B  
9 through a pair of base stations B and C to base station C.

10

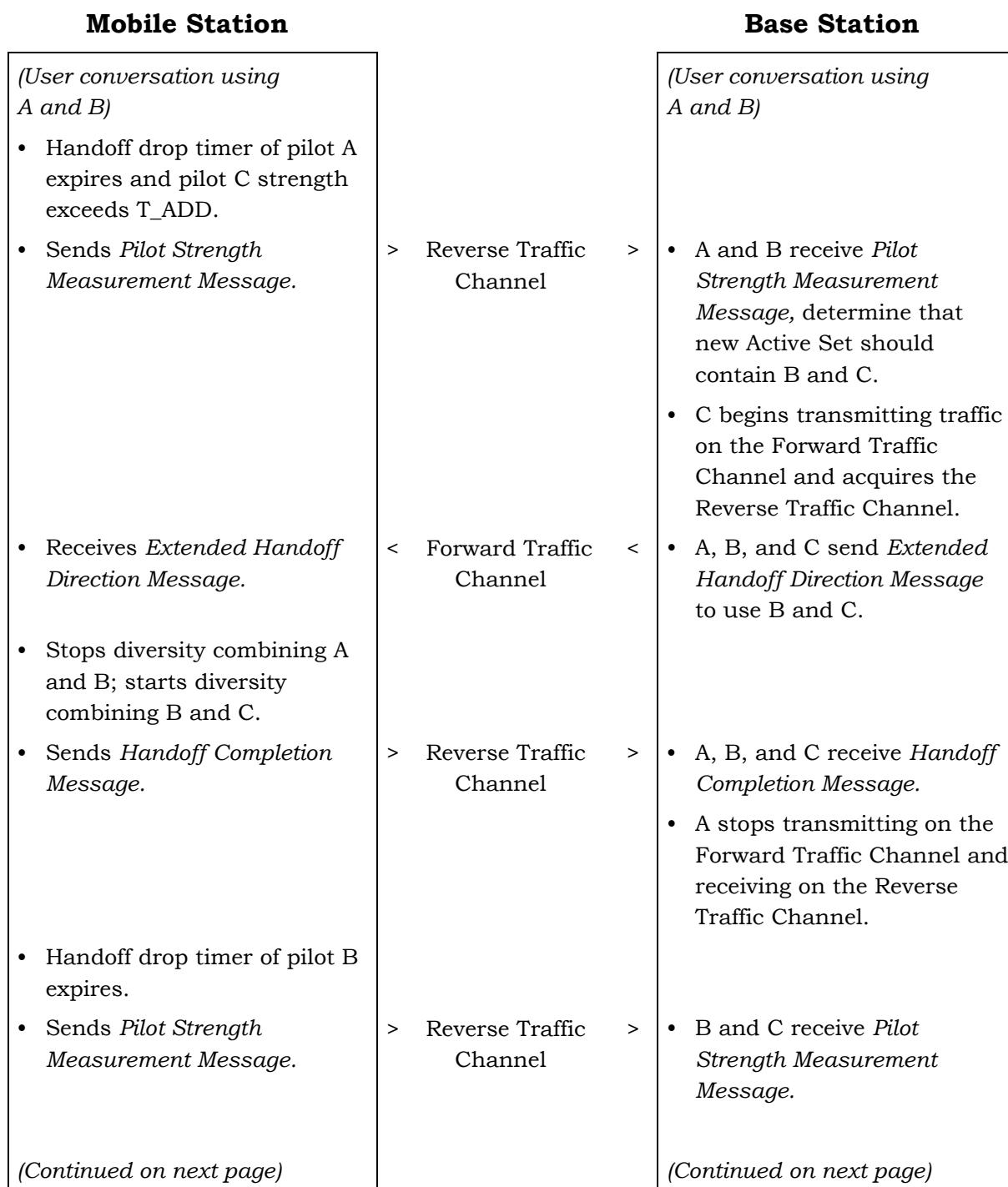
1



2

**Figure B-7. Call Processing During Soft Handoff**

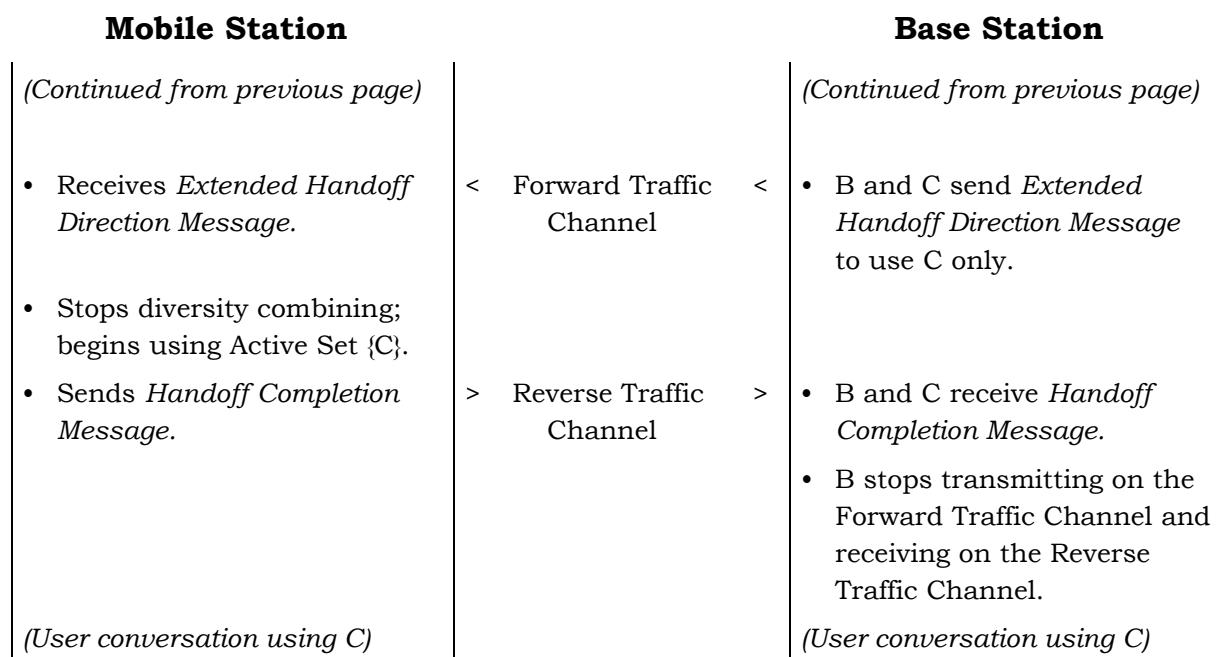
1



2

**Figure B-8. Call Processing During Sequential Soft Handoff (Part 1 of 2)**

1



2

**Figure B-8. Call Processing During Sequential Soft Handoff (Part 2 of 2)**

1

| <b>Mobile Station</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>Base Station</b>                                                                                                                                                                        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>User initiates priority call.</li> <li>Sends <i>Origination Message</i>.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                 | <p>&gt; Access Channel &gt;</p>                                                                                                                                                            |
| <ul style="list-style-type: none"> <li>Indicates to user that priority call has been queued as a PACA call, and indicates queue position.</li> <li>Uses non-slotted mode operation while waiting for channel assignment.</li> </ul>                                                                                                                                                                                                                                                        | <p>&lt; Paging Channel &lt;</p>                                                                                                                                                            |
| <ul style="list-style-type: none"> <li>Indicates updated queue position to user.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                | <p>&lt; Paging Channel &lt;</p>                                                                                                                                                            |
| <ul style="list-style-type: none"> <li>Sends <i>Origination Message</i> again.</li> <li>Indicates to user that PACA call is proceeding, sets up Traffic Channel.</li> <li>Receives N<sub>5m</sub> consecutive valid frames.</li> <li>Begins sending Traffic Channel preamble.</li> <li>Begins transmitting null Traffic Channel data.</li> <li>Begins processing primary traffic in accordance with Service Option 1.</li> <li>Sends <i>Service Connect Completion Message</i>.</li> </ul> | <p>&gt; Access Channel &gt;</p> <p>&lt; Paging Channel &lt;</p> <p>&lt; Forward Traffic Channel &lt;</p> <p>&lt; Forward Traffic Channel &lt;</p> <p>&gt; Reverse Traffic Channel &gt;</p> |
| (Continued on next page)                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | (Continued on next page)                                                                                                                                                                   |

2

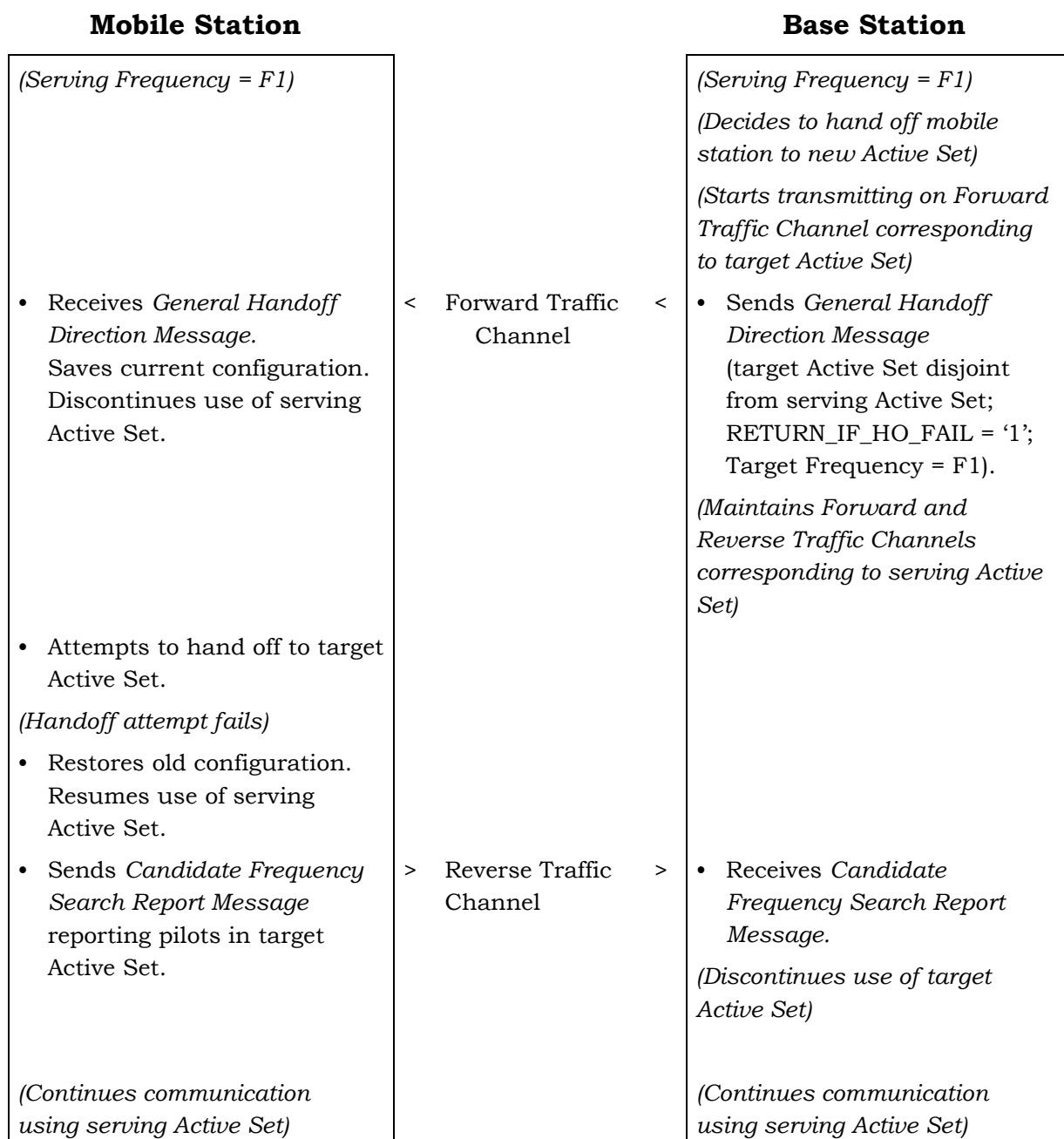
**Figure B-9. PACA Call Processing (Part 1 of 2)**

| <b>Mobile Station</b>                                                                                                                                                             | <b>Base Station</b>                   |                         |   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-------------------------|---|
| <i>(Continued from previous page)</i>                                                                                                                                             | <i>(Continued from previous page)</i> |                         |   |
| Optional                                                                                                                                                                          | >                                     | Reverse Traffic Channel | > |
| <ul style="list-style-type: none"> <li>Sends <i>Origination Continuation Message</i>.</li> </ul>                                                                                  | <                                     | Forward Traffic Channel | < |
| <ul style="list-style-type: none"> <li>Alerts user with distinct PACA alert.</li> <li>User answers call.</li> <li>Stops alerting.</li> <li>Sends <i>Connect Order</i>.</li> </ul> | >                                     | Reverse Traffic Channel | > |
| Optional                                                                                                                                                                          | <                                     | Forward Traffic Channel | < |
| <ul style="list-style-type: none"> <li>Applies ring back in audio path.</li> </ul>                                                                                                | >                                     | Reverse Traffic Channel | > |
| Optional                                                                                                                                                                          | <                                     | Forward Traffic Channel | < |
| <ul style="list-style-type: none"> <li>Removes ring back from audio path.</li> </ul>                                                                                              | >                                     | Forward Traffic Channel | < |
| <i>(User conversation)</i>                                                                                                                                                        | <i>(User conversation)</i>            |                         |   |

**Figure B-9. PACA Call Processing (Part 2 of 2)**

Figure B-10 illustrates call processing operations for failure recovery for hard handoff on the same frequency. Figure B-11 illustrates call flow for failure recovery for inter-frequency handoff when the mobile station does not search the Candidate Frequency. Figures B-12 and B-13 show the call flow for mobile-assisted inter-frequency handoff (handoff preceded by searching of the Candidate Frequency Search Set by the mobile station), where the search is started by using the *Candidate Frequency Search Control Message*. Figures B-14 and B-15 illustrate call flow for inter-frequency handoff when failure recovery also includes searching the Candidate Frequency Search Set. In the periodic search examples (Figures B-13 and B-15), it is assumed that the mobile station performs a search of the Candidate Frequency Search Set in a single visit to the Candidate Frequency. Figures B-16 and B-17 illustrate the interaction of inter-frequency handoff operations with an ongoing periodic search of the Candidate Frequency Search Set.

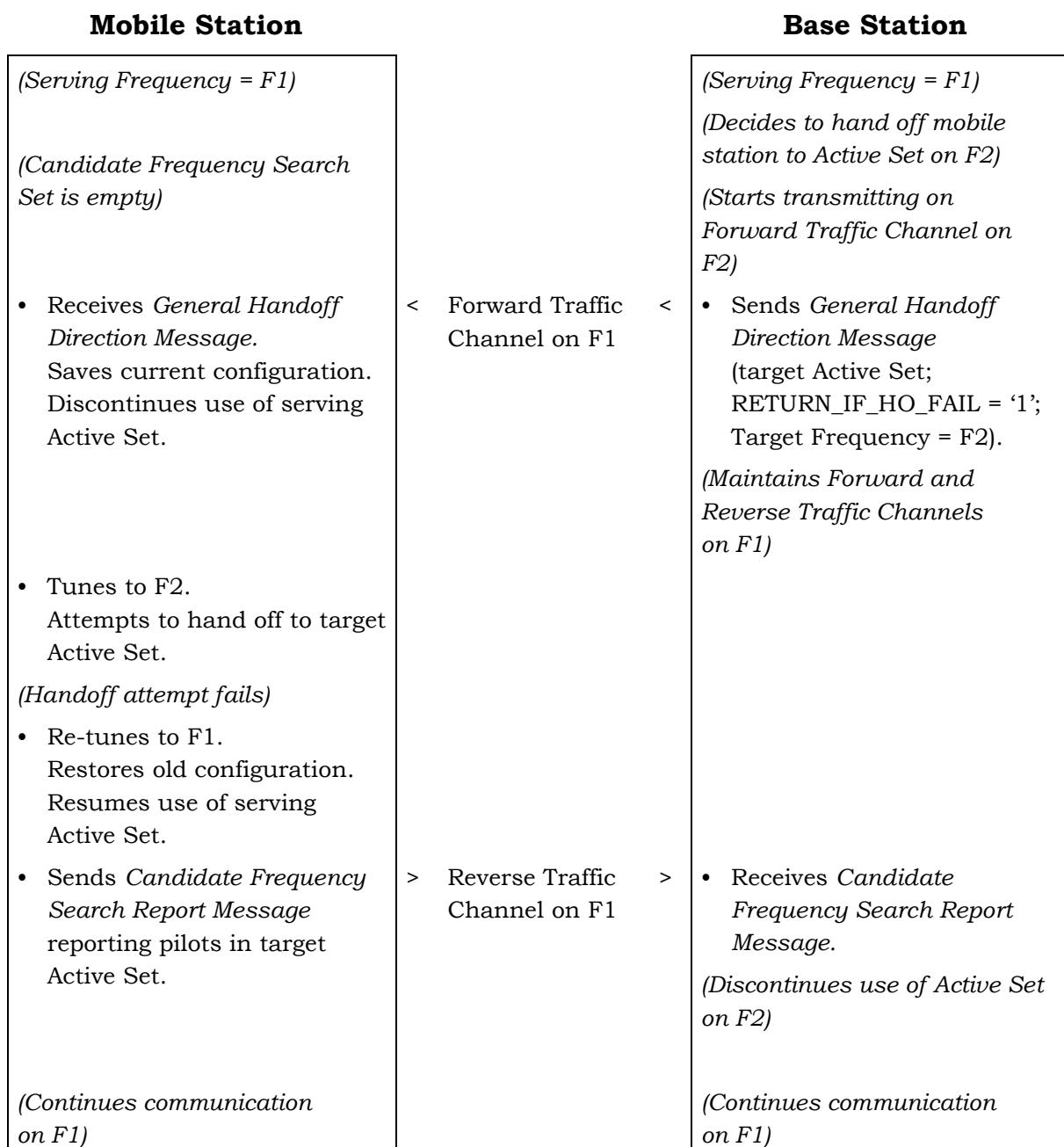
1



2

**Figure B-10. Call Flow for Same Frequency Hard Handoff Failure Recovery**

1

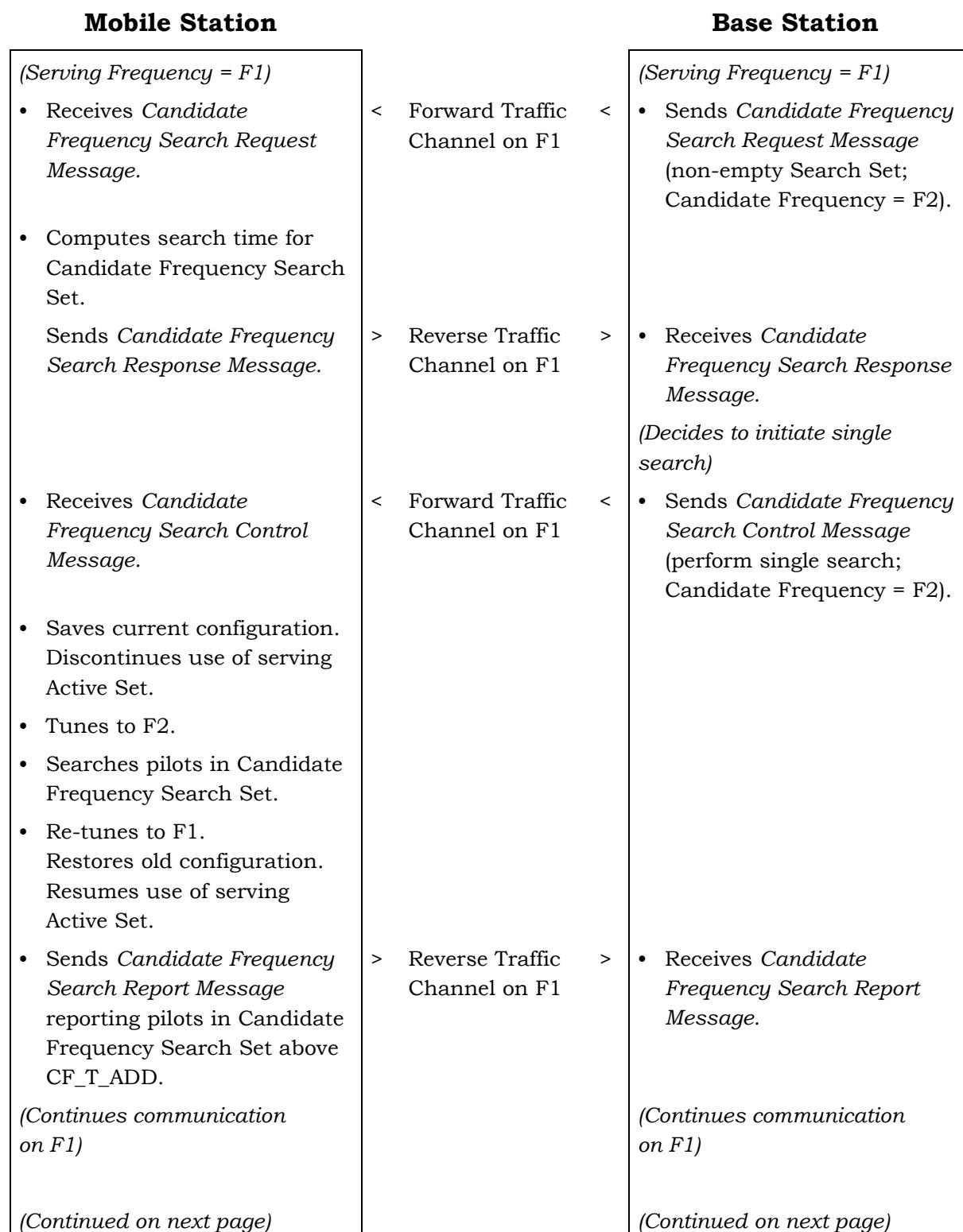


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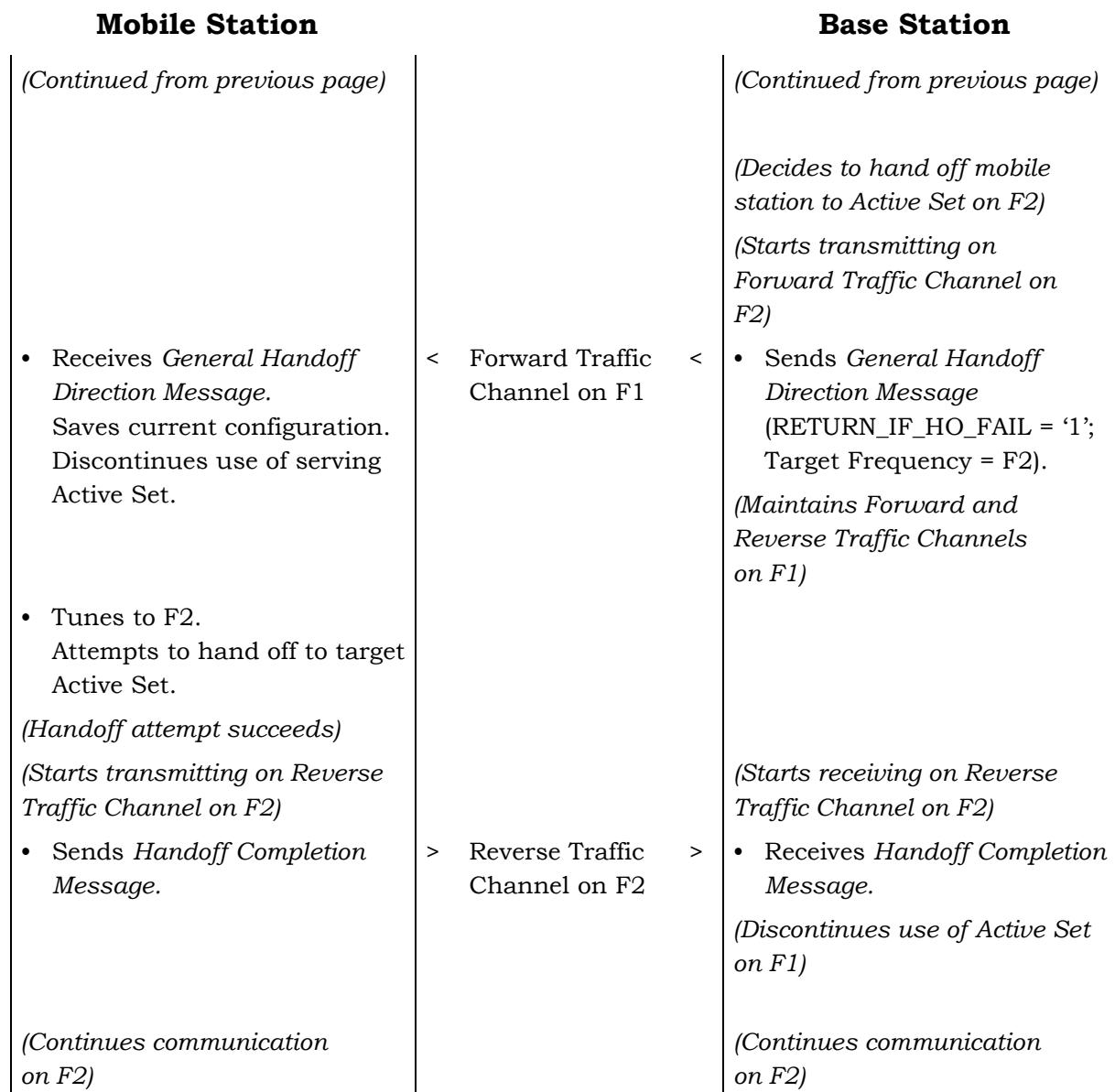
**Figure B-11. Call Flow for Inter-Frequency Hard Handoff Failure Recovery without Search**

1



2      **Figure B-12. Call Flow for Inter-Frequency Handoff (Single Search Using Candidate**  
 3      **Frequency Search Control Message) (Part 1 of 2)**

1

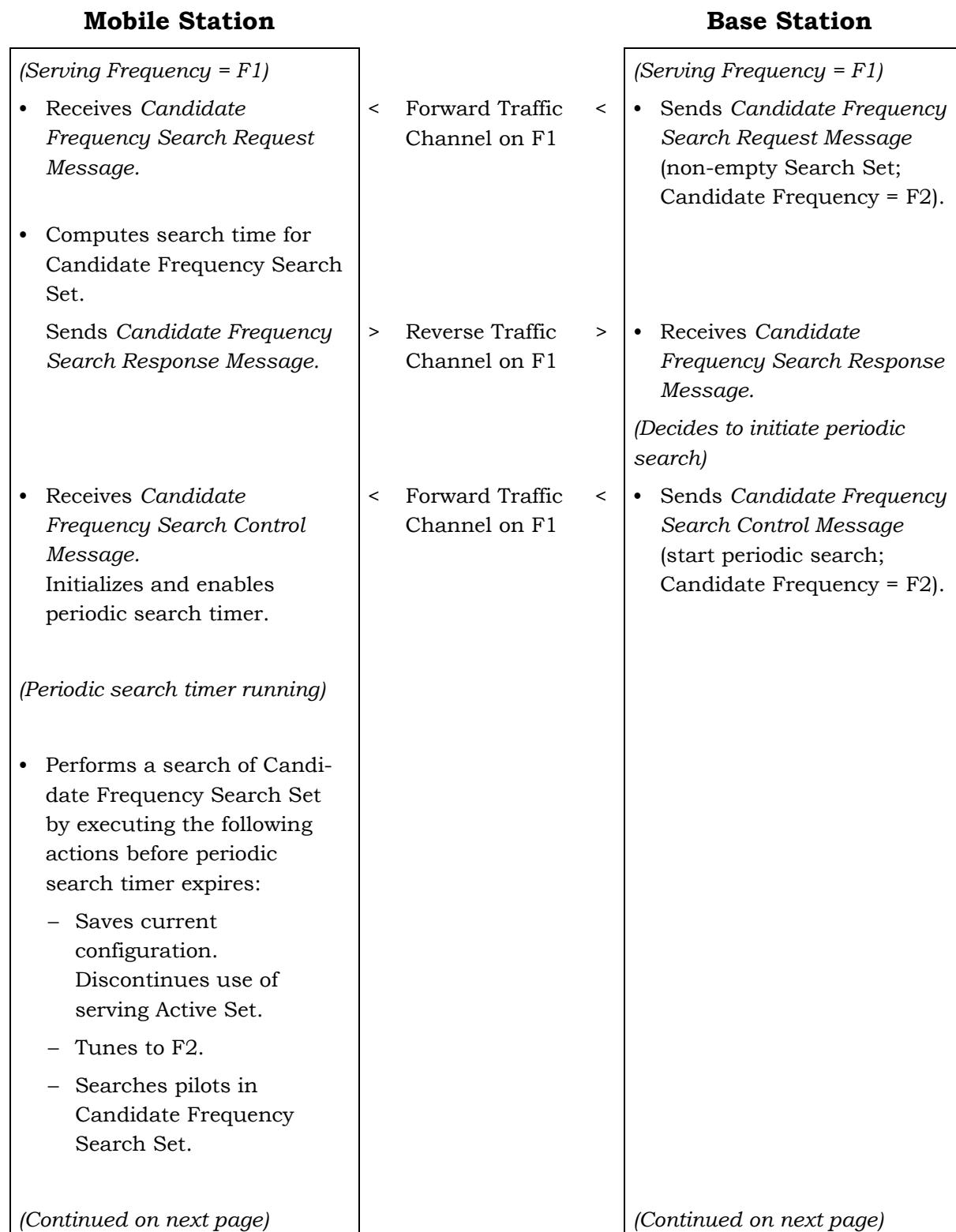


2

**Figure B-12. Call Flow for Inter-Frequency Handoff (Single Search Using Candidate Frequency Search Control Message) (Part 2 of 2)**

3

1



2   **Figure B-13. Call Flow for Inter-Frequency Handoff (Periodic Search Using Candidate**  
 3   **Frequency Search Control Message) (Part 1 of 3)**

1

| <b>Mobile Station</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>Base Station</b>                                                                                                                                                                                                                                                                                                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (Continued from previous page)                                                                                                                                                                                                                                                                                                                                                                                                                                            | (Continued from previous page)                                                                                                                                                                                                                                                                                        |
| <ul style="list-style-type: none"> <li>- Re-tunes to F1.</li> <li>Restores old configuration.</li> <li>Resumes use of serving Active Set.</li> </ul>                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                       |
| <ul style="list-style-type: none"> <li>- Sends <i>Candidate Frequency Search Report Message</i> reporting pilots in Candidate Frequency Search Set above CF_T_ADD.</li> </ul> <p>(Continues communication on F1)</p> <p>(Periodic search timer expires)</p> <ul style="list-style-type: none"> <li>• Initializes and enables periodic search timer.</li> </ul> <p>(Continues periodic search on F2 by repeating the search described above, once every search period)</p> | > Reverse Traffic Channel on F1 > <ul style="list-style-type: none"> <li>• Receives <i>Candidate Frequency Search Report Message</i>.</li> </ul> <p>(Continues communication on F1)</p> <p>(Decides to hand off mobile station to Active Set on F2)</p> <p>(Starts transmitting on Forward Traffic Channel on F2)</p> |
| (Continued on next page)                                                                                                                                                                                                                                                                                                                                                                                                                                                  | (Continued on next page)                                                                                                                                                                                                                                                                                              |

2

**Figure B-13. Call Flow for Inter-Frequency Handoff (Periodic Search Using Candidate Frequency Search Control Message) (Part 2 of 3)**

3

1

**Mobile Station***(Continued from previous page)*

- Receives *General Handoff Direction Message*.  
Disables periodic search timer.  
Saves current configuration.  
Discontinues use of serving Active Set.
- Tunes to F2.  
Attempts to hand off to target Active Set.

*(Handoff attempt succeeds)**(Starts transmitting on Reverse Traffic Channel on F2)*

- Sends *Handoff Completion Message*.

*(Continues communication on F2)***Base Station***(Continued from previous page)*

- < Forward Traffic Channel on F1 <
- Sends *General Handoff Direction Message*  
(RETURN\_IF\_HO\_FAIL = '1'; Target Frequency = F2).

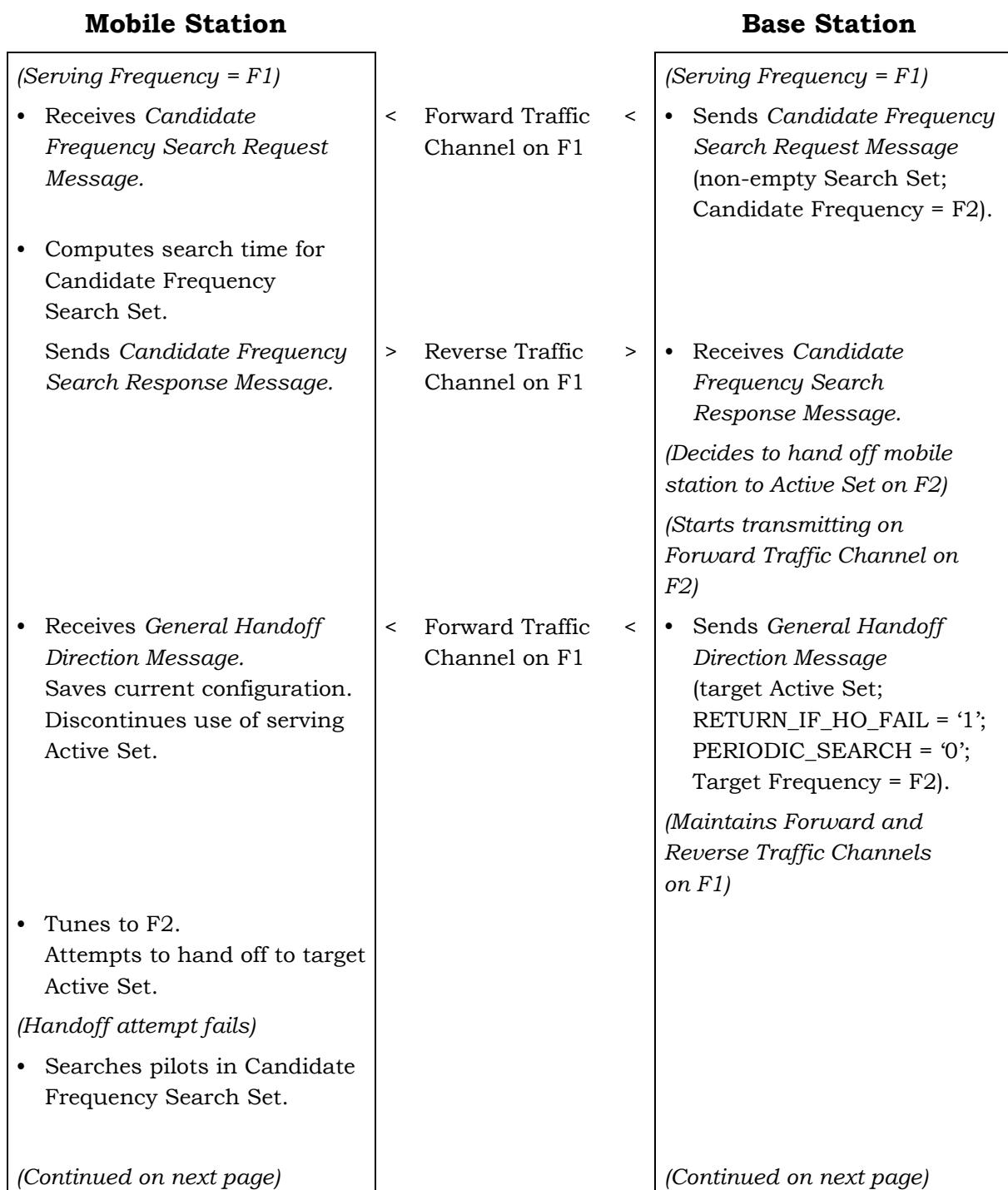
*(Maintains Forward and Reverse Traffic Channels on F1)*

- > Reverse Traffic Channel on F2 >
- Receives *Handoff Completion Message*.

*(Discontinues use of Active Set on F1)**(Continues communication on F2)*

2 **Figure B-13. Call Flow for Inter-Frequency Handoff (Periodic Search Using Candidate Frequency Search Control Message) (Part 3 of 3)**  
 3

1



2

3

**Figure B-14. Call Flow for Inter-Frequency Handoff (Single Search Using General Handoff Direction Message) (Part 1 of 3)**

1

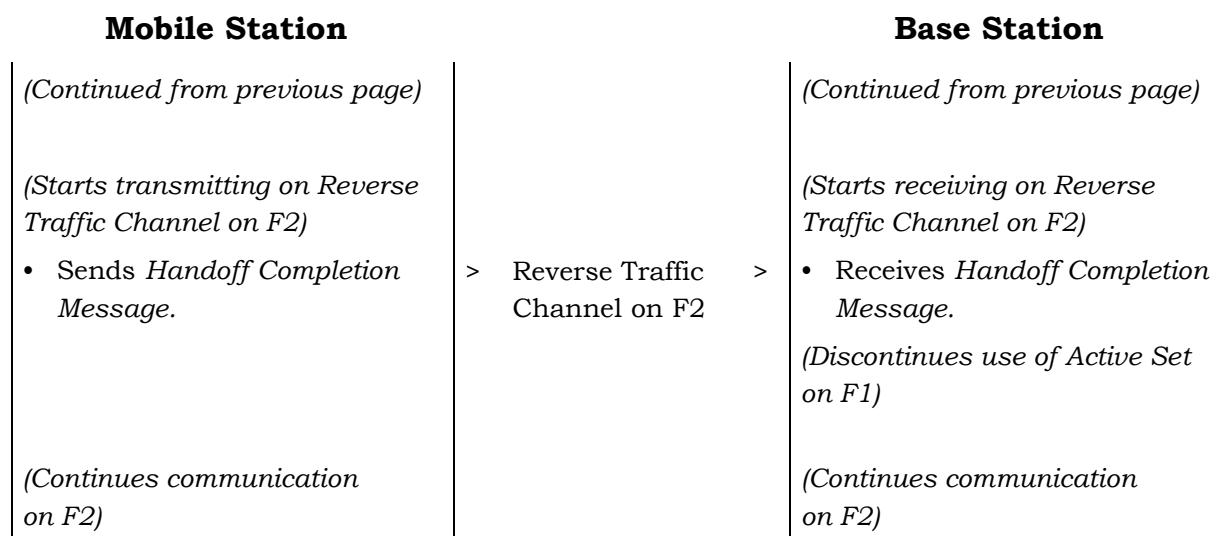
| <b>Mobile Station</b>                                                                                                                                                                                                                                                                                       |   |                                                                                                                                                                                                                 | <b>Base Station</b>                                                                                                                                                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (Continued from previous page)                                                                                                                                                                                                                                                                              |   |                                                                                                                                                                                                                 | (Continued from previous page)                                                                                                                                                                                                              |
| <ul style="list-style-type: none"> <li>Re-tunes to F1.<br/>Restores old configuration.<br/>Resumes use of serving Active Set.</li> <li>Sends <i>Candidate Frequency Search Report Message</i> reporting pilots in target Active Set and pilots in Candidate Frequency Search Set above CF_T_ADD.</li> </ul> | > | <p>Reverse Traffic Channel on F1</p> <p>&gt;</p> <ul style="list-style-type: none"> <li>Receives <i>Candidate Frequency Search Report Message</i>.<br/><i>(Discontinues use of Active Set on F2)</i></li> </ul> |                                                                                                                                                                                                                                             |
| (Continues communication on F1)                                                                                                                                                                                                                                                                             |   |                                                                                                                                                                                                                 | (Continues communication on F1)                                                                                                                                                                                                             |
|                                                                                                                                                                                                                                                                                                             | < |                                                                                                                                                                                                                 | (Decides to hand off mobile station to new Active Set on F2)<br><i>(Starts transmitting on Forward Traffic Channel on F2)</i>                                                                                                               |
| <ul style="list-style-type: none"> <li>Saves current configuration.<br/>Discontinues use of serving Active Set.</li> <li>Tunes to F2.<br/>Attempts to hand off to target Active Set.</li> </ul> <p><i>(Handoff attempt succeeds)</i></p>                                                                    |   | <                                                                                                                                                                                                               | <ul style="list-style-type: none"> <li>Sends <i>General Handoff Direction Message</i> (new target Active Set; RETURN_IF_HO_FAIL = '1'; Target Frequency = F2).<br/><i>(Maintains Forward and Reverse Traffic Channels on F1)</i></li> </ul> |
| (Continued on next page)                                                                                                                                                                                                                                                                                    |   |                                                                                                                                                                                                                 | (Continued on next page)                                                                                                                                                                                                                    |

2

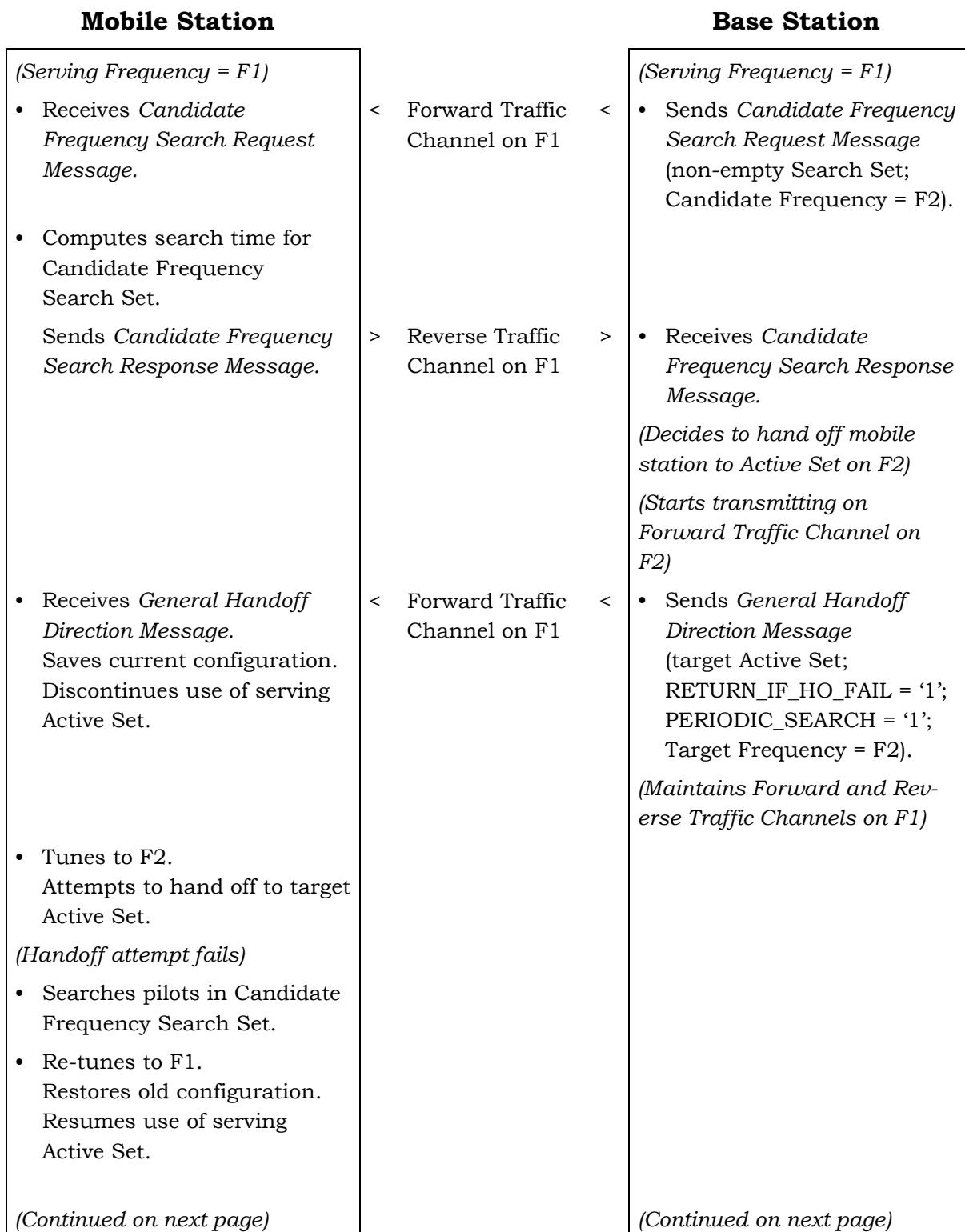
3

**Figure B-14. Call Flow for Inter-Frequency Handoff (Single Search Using General Handoff Direction Message) (Part 2 of 3)**

1

2  
3**Figure B-14. Call Flow for Inter-Frequency Handoff (Single Search Using General Handoff Direction Message) (Part 3 of 3)**

1



2      **Figure B-15. Call Flow for Inter-Frequency Handoff (Periodic Search Using General  
3      Handoff Direction Message) (Part 1 of 4)**

1

| <b>Mobile Station</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>Base Station</b>                                                                                                                                                                                                                                                                        |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (Continued from previous page)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | (Continued from previous page)                                                                                                                                                                                                                                                             |
| <ul style="list-style-type: none"> <li>Sends <i>Candidate Frequency Search Report Message</i> reporting pilots in target Active Set and pilots in Candidate Frequency Search Set above CF_T_ADD.</li> <li>Initializes and enables periodic search timer.</li> </ul> <p>(Continues communication on F1)<br/>(Periodic search timer running)</p> <ul style="list-style-type: none"> <li>Performs a search of Candidate Frequency Search Set by executing the following actions before periodic search timer expires:             <ul style="list-style-type: none"> <li>Saves current configuration.<br/>Discontinues use of serving Active Set.</li> <li>Tunes to F2.</li> <li>Searches pilots in Candidate Frequency Search Set.</li> <li>Re-tunes to F1.<br/>Restores old configuration.<br/>Resumes use of serving Active Set.</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>Reverse Traffic Channel on F1</li> </ul> <p>&gt;</p> <ul style="list-style-type: none"> <li>Receives <i>Candidate Frequency Search Report Message</i>.<br/>(Discontinues use of Active Set on F2)</li> </ul> <p>(Continues communication on F1)</p> |
| (Continued on next page)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | (Continued on next page)                                                                                                                                                                                                                                                                   |

2

**Figure B-15. Call Flow for Inter-Frequency Handoff (Periodic Search Using General Handoff Direction Message) (Part 2 of 4)**

3

1

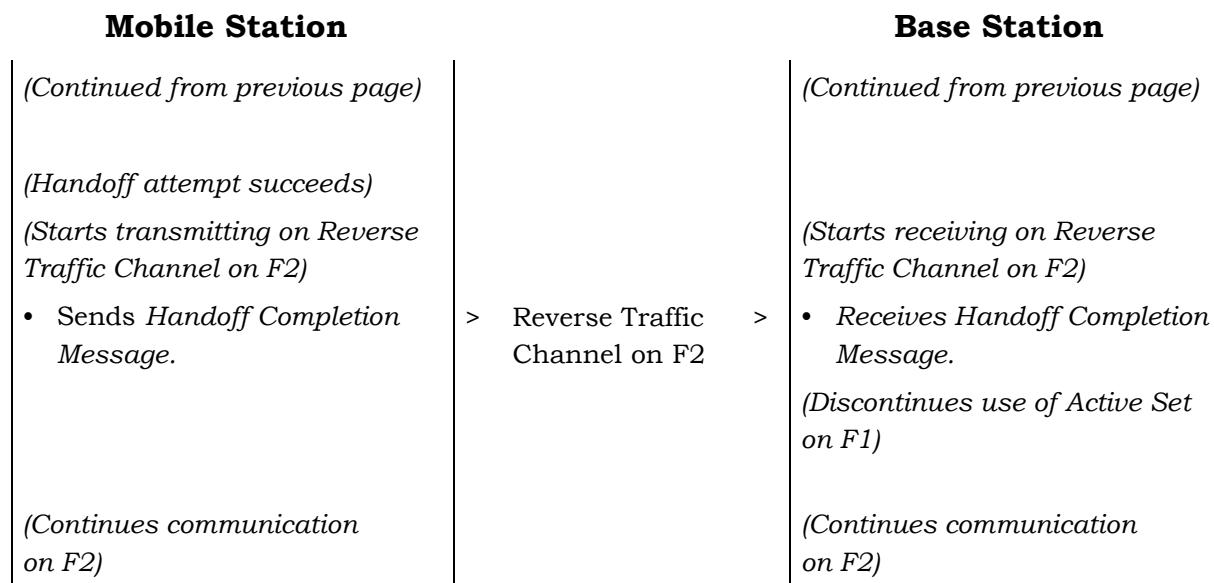
| <b>Mobile Station</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                 |                                                                                                                                                                                                                                                                                                                 | <b>Base Station</b>            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| (Continued from previous page)                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                 |                                                                                                                                                                                                                                                                                                                 | (Continued from previous page) |
| <ul style="list-style-type: none"> <li>- Sends <i>Candidate Frequency Search Report Message</i> reporting pilots in Candidate Frequency Search Set above CF_T_ADD.</li> </ul> <p>(Continues communication on F1)</p> <p>(Periodic search timer expires)</p> <ul style="list-style-type: none"> <li>• Initializes and enables periodic search timer.</li> </ul> <p>(Continues periodic search on F2 by repeating the search described above, once every search period)</p> | > Reverse Traffic Channel on F1 | > <ul style="list-style-type: none"> <li>• Receives <i>Candidate Frequency Search Report Message</i>.</li> </ul> <p>(Continues communication on F1)</p>                                                                                                                                                         |                                |
| <ul style="list-style-type: none"> <li>• Receives <i>General Handoff Direction Message</i>. Disables periodic search timer. Saves current configuration. Discontinues use of serving Active Set.</li> <li>• Tunes to F2. Attempts to hand off to target Active Set.</li> </ul>                                                                                                                                                                                            | < Forward Traffic Channel on F1 | < <ul style="list-style-type: none"> <li>• Sends <i>General Handoff Direction Message</i> (new target Active Set; RETURN_IF_HO_FAIL = '1'; Target Frequency = F2).</li> </ul> <p>(Decides to hand off mobile station to new Active Set on F2)</p> <p>(Starts transmitting on Forward Traffic Channel on F2)</p> |                                |
| (Continued on next page)                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                 |                                                                                                                                                                                                                                                                                                                 | (Continued on next page)       |

2

**Figure B-15. Call Flow for Inter-Frequency Handoff (Periodic Search Using General Handoff Direction Message) (Part 3 of 4)**

3

1

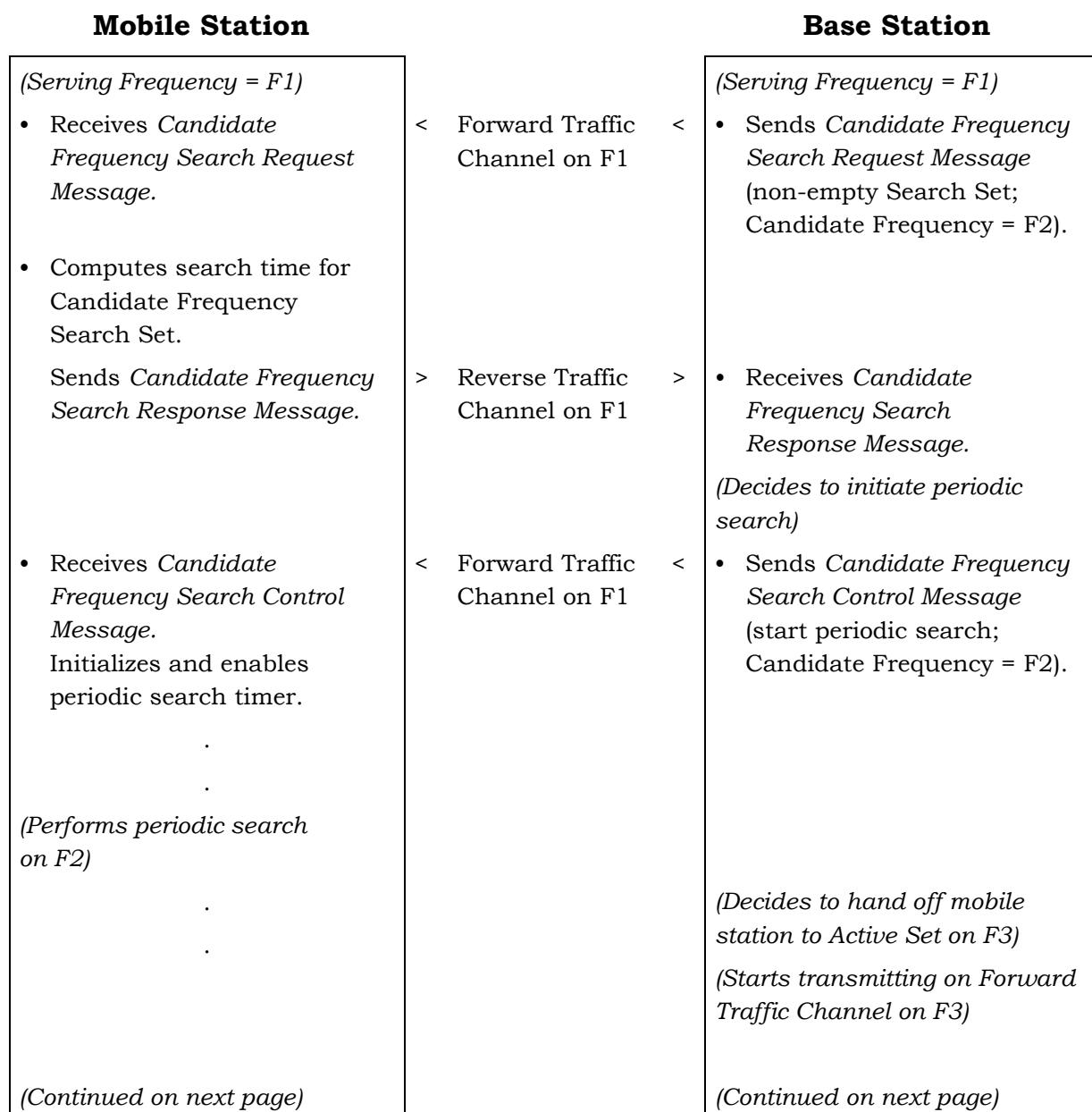


2

**Figure B-15. Call Flow for Inter-Frequency Handoff (Periodic Search Using General Handoff Direction Message) (Part 4 of 4)**

3

1



2           **Figure B-16. Call Flow for Periodic Search on F2 from F1, Failed Handoff**  
 3           **Attempt to F3, Continued Periodic Search of F2 from F1 (Part 1 of 3)**

1

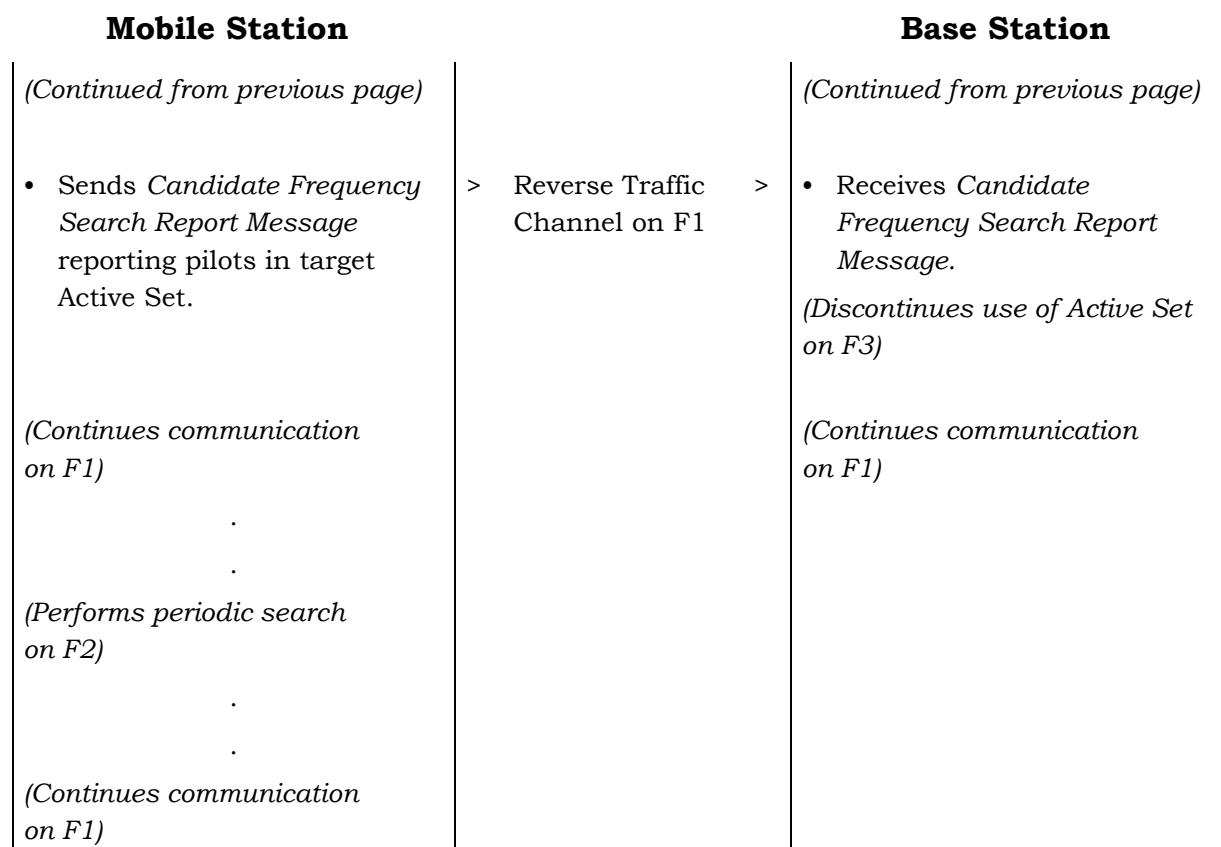
| <b>Mobile Station</b>                                                                                                                                                                                                                                                                                                                        | <b>Base Station</b>                                                                                                                                                                                                                                                          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (Continued from previous page)                                                                                                                                                                                                                                                                                                               | (Continued from previous page)                                                                                                                                                                                                                                               |
| <ul style="list-style-type: none"> <li>• Receives <i>General Handoff Direction Message</i>.<br/>Disables periodic search timer.<br/>Saves current configuration.<br/>Discontinues use of serving Active Set.</li> </ul>                                                                                                                      | < Forward Traffic Channel on F1 <                                                                                                                                                                                                                                            |
| <ul style="list-style-type: none"> <li>• Tunes to F3.<br/>Attempts to hand off to target Active Set.</li> </ul> <p>(Handoff attempt fails)</p> <ul style="list-style-type: none"> <li>• Re-tunes to F1.<br/>Restores old configuration.<br/>Resumes use of serving Active Set.<br/>Initializes and enables periodic search timer.</li> </ul> | <ul style="list-style-type: none"> <li>• Sends <i>General Handoff Direction Message</i><br/>(target Active Set;<br/>RETURN_IF_HO_FAIL = '1';<br/>PERIODIC_SEARCH = '1';<br/>Target Frequency = F3).</li> </ul> <p>(Maintains Forward and Reverse Traffic Channels on F1)</p> |
| (Continued on next page)                                                                                                                                                                                                                                                                                                                     | (Continued on next page)                                                                                                                                                                                                                                                     |

2

**Figure B-16. Call Flow for Periodic Search on F2 from F1, Failed Handoff Attempt to F3, Continued Periodic Search of F2 from F1 (Part 2 of 3)**

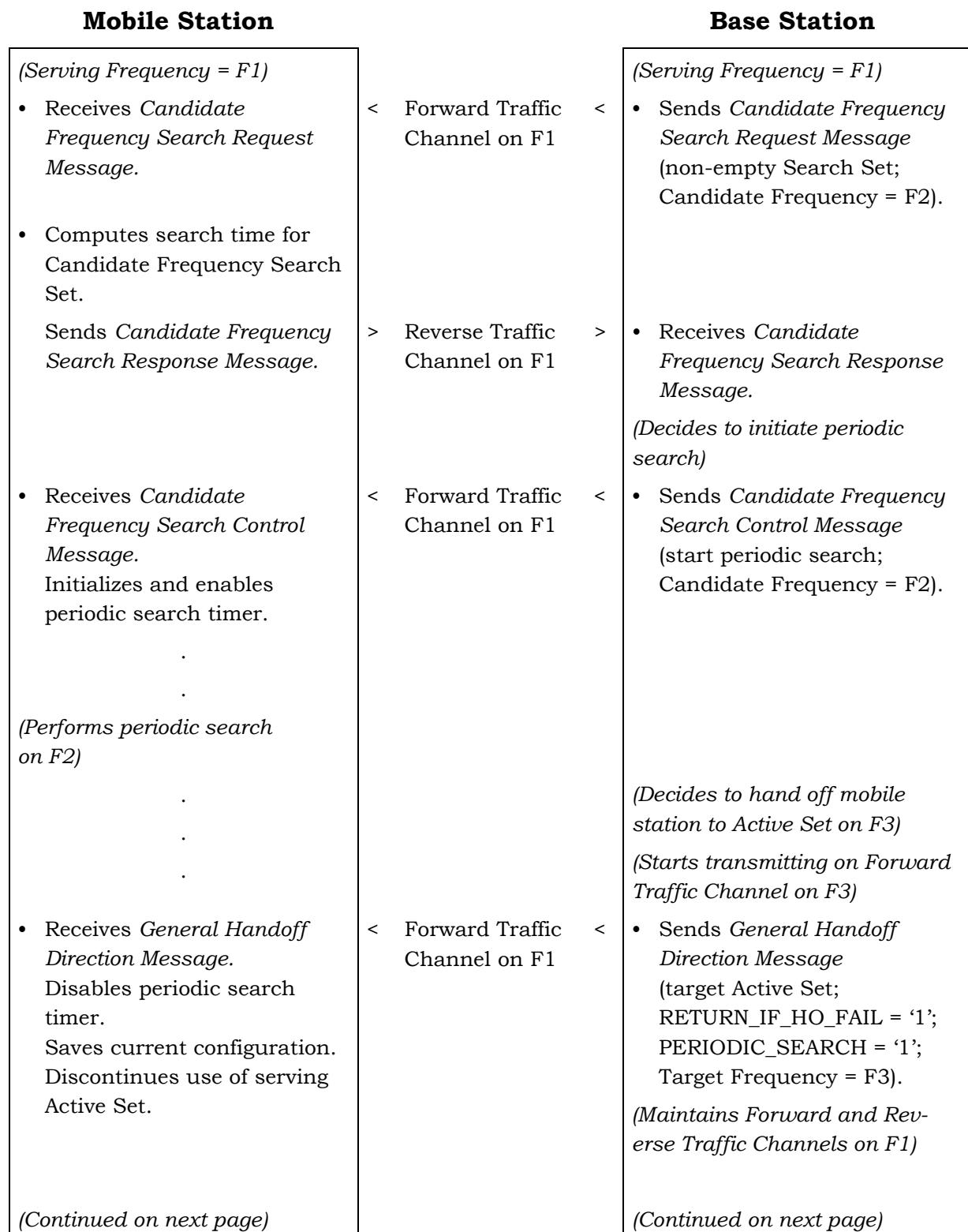
3

1

2  
3

**Figure B-16. Call Flow for Periodic Search on F2 from F1, Failed Handoff Attempt to F3, Continued Periodic Search of F2 from F1 (Part 3 of 3)**

1

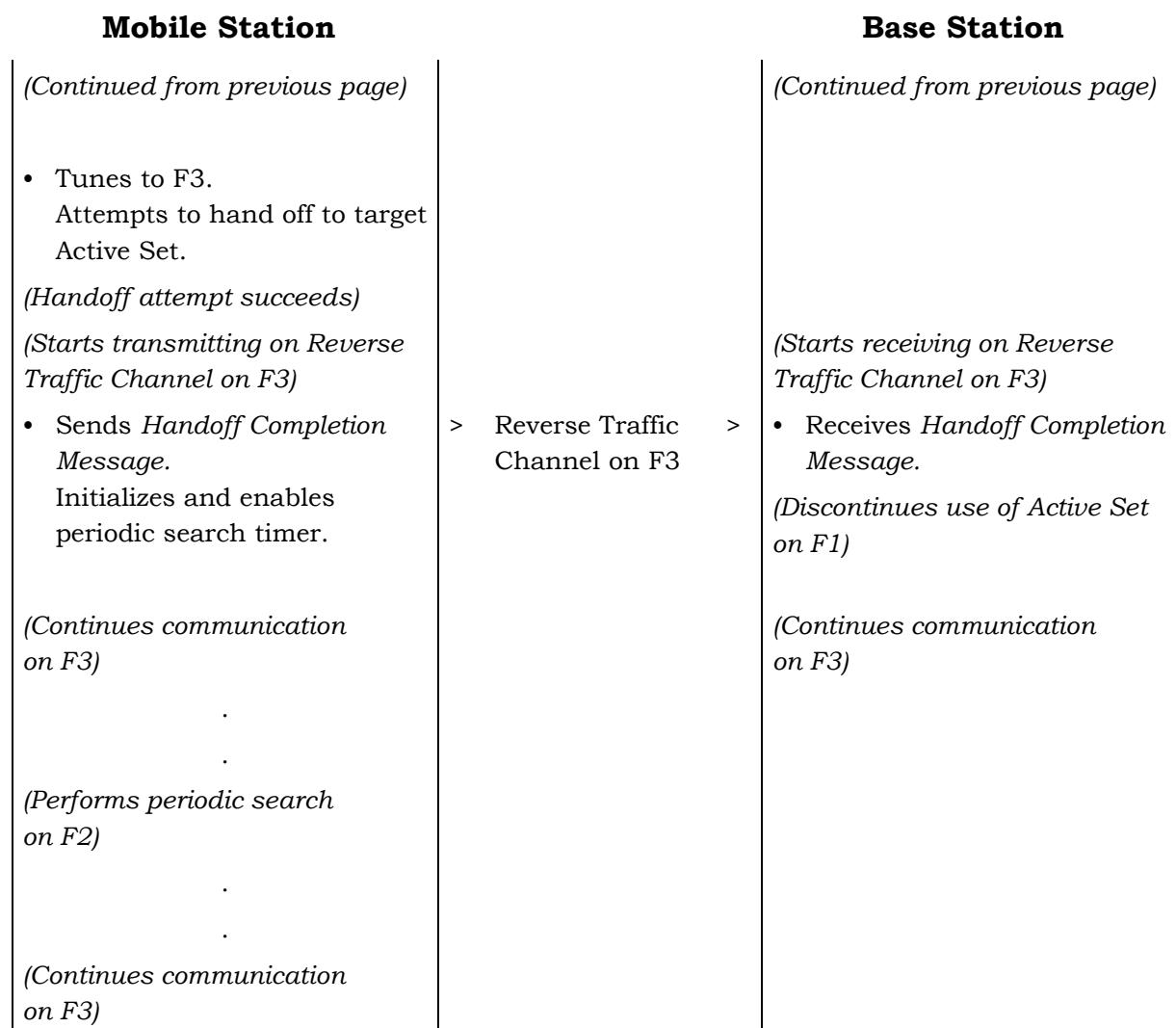


2

**Figure B-17. Call Flow for Periodic Search on F2 from F1, Successful Handoff to F3, Continued Periodic Search on F2 from F3 (Part 1 of 2)**

3

1



2

**Figure B-17. Call Flow for Periodic Search on F2 from F1, Successful Handoff to F3, Continued Periodic Search on F2 from F3 (Part 2 of 2)**

3

1

| <b>Mobile Station</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>Base Station</b>                                                                                                                                                                                                                                                                                                                                                                                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• Packet arrives.</li> <li>• Sends <i>Origination Message</i> with “High Speed Packet Service Option.”</li> </ul>                                                                                                                                                                                                                                                                                                                                                                               | <p>&gt; Access Channel &gt;</p> <ul style="list-style-type: none"> <li>• Sets up Traffic Channel.</li> </ul>                                                                                                                                                                                                                                                                                        |
| <ul style="list-style-type: none"> <li>• Sets up Traffic Channel.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <p>&lt; Paging Channel &lt;</p> <ul style="list-style-type: none"> <li>• Begins sending null Traffic Channel data.</li> </ul>                                                                                                                                                                                                                                                                       |
| <ul style="list-style-type: none"> <li>• Receives N<sub>5m</sub> consecutive valid frames.</li> <li>• Begins sending the Traffic Channel preamble.</li> <li>• Begins transmitting null Traffic Channel data.</li> <li>• Sends <i>Service Request Message</i> (FOR_MUX_OPTION and REV_MUX_OPTION indicates max number of Supplemental Code Channels).</li> <li>• Begins processing primary traffic in accordance with Service Option n.</li> <li>• Sends <i>Service Connect Completion Message</i>.</li> <li>• Sends packet.</li> </ul> | <p>&lt; Forward Traffic Channel &lt;</p> <p>&gt; Reverse Traffic Channel</p> <p>&lt; Forward Traffic Channel &lt;</p> <p>&gt; Reverse Traffic Channel</p> <p>&gt; Reverse Fundamental Channel</p> <p>&lt; Forward Fundamental Channel &lt;</p> <ul style="list-style-type: none"> <li>• Acquires the Reverse Traffic Channel.</li> <li>• Sends <i>Base Station Acknowledgment Order</i>.</li> </ul> |
| (Continued on next page)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | (Continued on next page)                                                                                                                                                                                                                                                                                                                                                                            |

2

**Figure B-18. Simple Call Flow Mobile Station Origination Example with Transmission on Forward Supplemental Code Channels (Part 1 of 2)**

3

1

| Mobile Station                                                                                                                                                            |  | Base Station                                                                                                                                                                                                                                                                                                                                                                                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (Continued from previous page)                                                                                                                                            |  | (Continued from previous page)                                                                                                                                                                                                                                                                                                                                                                 |
| <p>(User traffic)</p> <ul style="list-style-type: none"> <li>&lt; Forward Fundamental Channel</li> <li>&lt; Forward Fundamental and Supplemental Code Channels</li> </ul> |  | <ul style="list-style-type: none"> <li>• Base station decides that it requires to change the number of Supplemental Channels (e.g., it has a “large” packet to send).</li> <li>• Send <i>Supplemental Channel Assignment Message</i>.</li> <li>• Begin transmitting on the Supplemental Code Channels for the duration specified in <i>Supplemental Channel Assignment Message</i>.</li> </ul> |

**Figure B-18. Simple Call Flow Mobile Station Origination Example with Transmission on Forward Supplemental Code Channels (Part 2 of 2)**

1

| <b>Mobile Station</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>Base Station</b>                                                                                                                                                                                                                                                                                                                                                                                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• Packet arrives.</li> <li>• Sends <i>Origination Message</i> with “High Speed Packet Service Option.”</li> </ul>                                                                                                                                                                                                                                                                                                                                                                               | <p>&gt; Access Channel &gt;</p> <ul style="list-style-type: none"> <li>• Sets up Traffic Channel.</li> </ul>                                                                                                                                                                                                                                                                                        |
| <ul style="list-style-type: none"> <li>• Sets up Traffic Channel.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <p>&lt; Paging Channel &lt;</p> <ul style="list-style-type: none"> <li>• Begins sending null Traffic Channel data.</li> </ul>                                                                                                                                                                                                                                                                       |
| <ul style="list-style-type: none"> <li>• Receives N<sub>5m</sub> consecutive valid frames.</li> <li>• Begins sending the Traffic Channel preamble.</li> <li>• Begins transmitting null Traffic Channel data.</li> <li>• Sends <i>Service Request Message</i> (FOR_MUX_OPTION and REV_MUX_OPTION indicates max number of Supplemental Code Channels).</li> <li>• Begins processing primary traffic in accordance with Service Option n.</li> <li>• Sends <i>Service Connect Completion Message</i>.</li> <li>• Sends packet.</li> </ul> | <p>&lt; Forward Traffic Channel &lt;</p> <p>&gt; Reverse Traffic Channel</p> <p>&lt; Forward Traffic Channel &lt;</p> <p>&gt; Reverse Traffic Channel</p> <p>&gt; Reverse Fundamental Channel</p> <p>&lt; Forward Fundamental Channel &lt;</p> <ul style="list-style-type: none"> <li>• Acquires the Reverse Traffic Channel.</li> <li>• Sends <i>Base Station Acknowledgment Order</i>.</li> </ul> |
| (Continued on next page)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | (Continued on next page)                                                                                                                                                                                                                                                                                                                                                                            |

2

**Figure B-19. Simple Call Flow Mobile Station Origination Example with Transmission on Reverse Supplemental Code Channels (Part 1 of 2)**

3

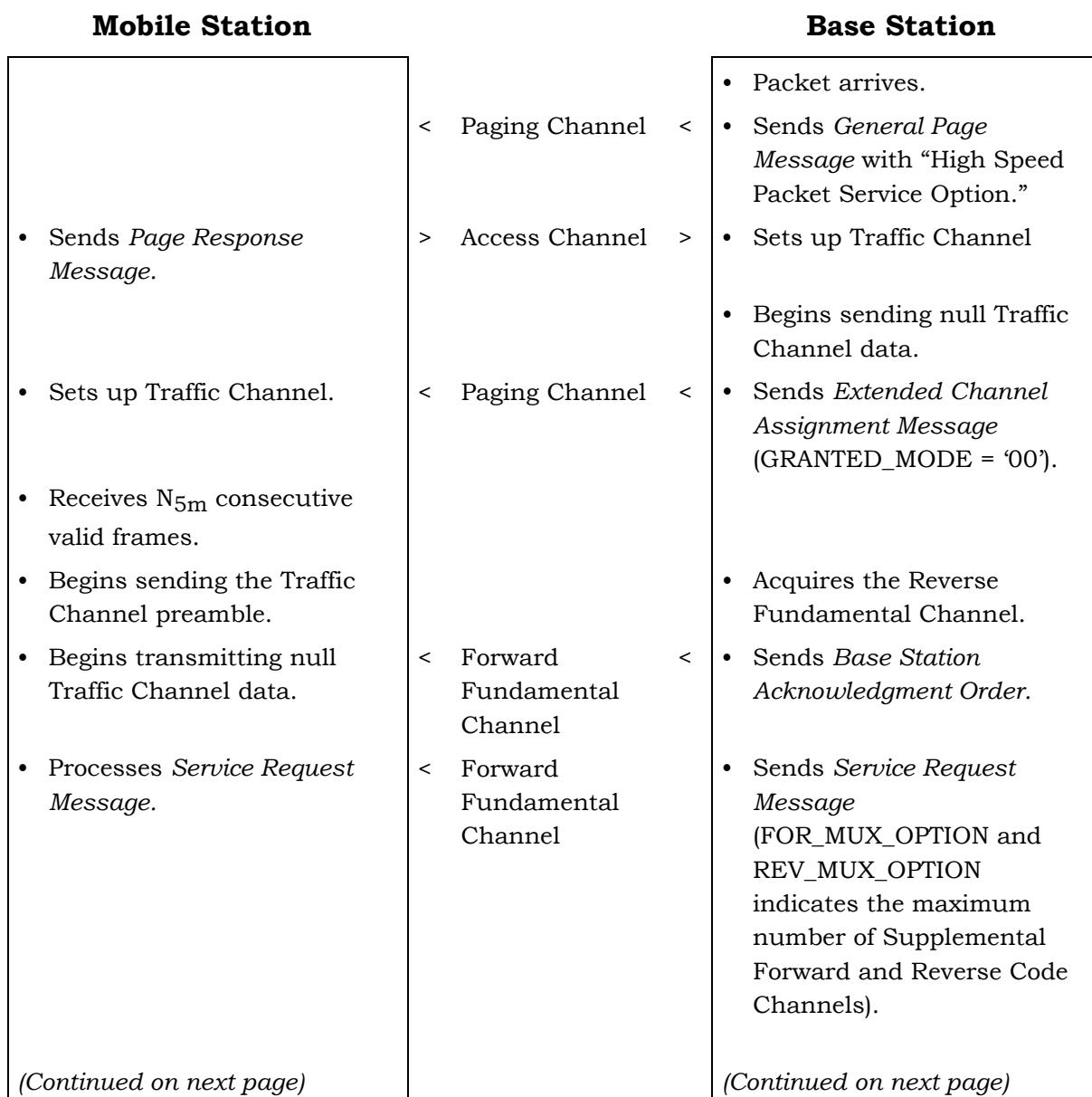
1

| <b>Mobile Station</b>                                                                                                                                                                                                                                                                                                                                             | <b>Base Station</b>                                |                                       |                                                                                                          |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|---------------------------------------|----------------------------------------------------------------------------------------------------------|--|
| <p>(Continued from previous page)</p> <ul style="list-style-type: none"> <li>• Mobile station has a “large” packet to send.</li> <li>• Continue transmitting on the Fundamental Channel.</li> <li>• Sends <i>Supplemental Channel Request Message</i>.</li> <li>• Begins transmitting on the Reverse Supplemental Code Channels.</li> </ul> <p>(User traffic)</p> |                                                    | <p>(Continued from previous page)</p> |                                                                                                          |  |
|                                                                                                                                                                                                                                                                                                                                                                   | > Reverse Fundamental Channel                      | >                                     |                                                                                                          |  |
|                                                                                                                                                                                                                                                                                                                                                                   | > Reverse Fundamental Channel                      | >                                     |                                                                                                          |  |
|                                                                                                                                                                                                                                                                                                                                                                   | < Forward Fundamental Channel                      | <                                     | <ul style="list-style-type: none"> <li>• Send <i>Supplemental Channel Assignment Message</i>.</li> </ul> |  |
|                                                                                                                                                                                                                                                                                                                                                                   | > Reverse Fundamental & Supplemental Code Channels | >                                     |                                                                                                          |  |
|                                                                                                                                                                                                                                                                                                                                                                   |                                                    |                                       | (User traffic)                                                                                           |  |

2 **Figure B-19. Simple Call Flow Mobile Station Origination Example with Transmission  
on Reverse Supplemental Code Channels (Part 2 of 2)**

3

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**Figure B-20. Simple Call Flow, Mobile Station Termination Example with Transmission on Forward Supplemental Code Channel(s) (Part 1 of 3)**

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3

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| <b>Mobile Station</b>                                                                                                                                                                                                                                                     | <b>Base Station</b>                   |                                   |   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------|---|
| <i>(Continued from previous page)</i>                                                                                                                                                                                                                                     | <i>(Continued from previous page)</i> |                                   |   |
|                                                                                                                                                                                                                                                                           | >                                     | Reverse<br>Fundamental<br>Channel | > |
| <ul style="list-style-type: none"> <li>Sends <i>Service Response Message</i> to accept Service Option with FOR_MUX_OPTION and REV_MUX_OPTION to indicate the maximum number of Supplemental Forward and Reverse Code Channels supported by the mobile station.</li> </ul> | <                                     | Forward<br>Fundamental<br>Channel | < |
| <ul style="list-style-type: none"> <li>Begins processing primary traffic in accordance with Service Option and multiplex option.</li> </ul>                                                                                                                               | >                                     | Reverse<br>Fundamental<br>Channel | > |
| <ul style="list-style-type: none"> <li>Sends <i>Service Connect Completion Message</i>.</li> </ul>                                                                                                                                                                        | >                                     | Reverse<br>Fundamental<br>Channel | > |
| <ul style="list-style-type: none"> <li>Sends packet, if any, on the Fundamental Channel.</li> </ul>                                                                                                                                                                       | <                                     | Forward<br>Fundamental<br>Channel | < |
|                                                                                                                                                                                                                                                                           |                                       |                                   |   |
| <i>(Continued on next page)</i>                                                                                                                                                                                                                                           | <i>(Continued on next page)</i>       |                                   |   |

2

**Figure B-20. Simple Call Flow, Mobile Station Termination Example with Transmission on Forward Supplemental Code Channel(s) (Part 2 of 3)**

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| <b>Mobile Station</b>                                                                                                                                                                                             | <b>Base Station</b>                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>(Continued from previous page)</i> <ul style="list-style-type: none"> <li>• Begins processing packet data received from Forward Fundamental and Supplemental Code Channel(s).</li> </ul> <i>(User traffic)</i> | <i>(Continued from previous page)</i> <ul style="list-style-type: none"> <li>• Base station decides that it requires to use Supplemental Channels to send a “large” packet.</li> <li>• Sends <i>Supplemental Channel Assignment Message</i>.</li> <li>• Begins transmitting on the Supplemental Code Channel(s) for the duration specified in <i>Supplemental Channel Assignment Message</i>.</li> </ul> <i>(User traffic)</i> |
| < Forward Fundamental Channel                                                                                                                                                                                     | < Forward Fundamental & Supplemental Code Channels                                                                                                                                                                                                                                                                                                                                                                             |

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**Figure B-20. Simple Call Flow, Mobile Station Termination Example with Transmission on Forward Supplemental Code Channel(s) (Part 3 of 3)**

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| <b>Mobile Station</b>                                                                                                                                                                                                                                                                                                                                                | <b>Base Station</b>                                                                                                                                                                                                                                                                                                                    |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• Sends <i>Page Response Message</i>.</li> <li>• Sets up Traffic Channel.</li> <li>• Receives <math>N_{5m}</math> consecutive valid frames.</li> <li>• Begins sending the Traffic Channel preamble.</li> <li>• Begins transmitting null Traffic Channel data.</li> <li>• Processes <i>Service Request Message</i>.</li> </ul> | <p>&lt; Paging Channel &lt;</p> <p>&gt; Access Channel &gt;</p> <p>&lt; Paging Channel &lt;</p> <p>&lt; Forward Fundamental Channel &lt;</p> <p>&lt; Forward Fundamental Channel &lt;</p>                                                                                                                                              |
| (Continued on next page)                                                                                                                                                                                                                                                                                                                                             | <ul style="list-style-type: none"> <li>• Packet arrives</li> <li>• Sends <i>General Page Message</i> with “High Speed Packet Service Option.”</li> <li>• Sets up Traffic Channel.</li> <li>• Begins sending null Traffic Channel data.</li> <li>• Sends <i>Extended Channel Assignment Message</i> (GRANTED_MODE = ‘00’).</li> </ul>   |
|                                                                                                                                                                                                                                                                                                                                                                      | <ul style="list-style-type: none"> <li>• Acquires the Reverse Fundamental Channel.</li> <li>• Sends <i>Base Station Acknowledgment Order</i>.</li> <li>• Sends <i>Service Request Message</i> (FOR_MUX_OPTION and REV_MUX_OPTION proposes the maximum number of Supplemental Forward and Reverse Code Channels to be used).</li> </ul> |
|                                                                                                                                                                                                                                                                                                                                                                      | (Continued on next page)                                                                                                                                                                                                                                                                                                               |

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**Figure B-21. Simple Call Flow, Mobile Station Termination Example with Transmission on Reverse Supplemental Code Channel(s) (Part 1 of 3)**

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| <b>Mobile Station</b>                                                                                                                                                                                                                                                                                                                           | <b>Base Station</b>                   |                             |                                                                                                                                                                                                                                              |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>(Continued from previous page)</i>                                                                                                                                                                                                                                                                                                           | <i>(Continued from previous page)</i> |                             |                                                                                                                                                                                                                                              |
|                                                                                                                                                                                                                                                                                                                                                 | >                                     | >                           |                                                                                                                                                                                                                                              |
| <ul style="list-style-type: none"> <li>Sends <i>Service Response Message</i> to accept Service Option, with FOR_MUX_OPTION and REV_MUX_OPTION to indicate the maximum number of Supplemental Code Channels supported by the mobile station.</li> <li>Begins processing primary traffic in accordance with the service configuration.</li> </ul> | Reverse Fundamental Channel           | Forward Fundamental Channel | <ul style="list-style-type: none"> <li>Sends <i>Service Connect Message</i> to connect corresponding SO, with FOR_MUX_OPTION and REV_MUX_OPTION to specify the maximum number of Supplemental Code Channel(s) mutually supported.</li> </ul> |
|                                                                                                                                                                                                                                                                                                                                                 | <                                     | <                           |                                                                                                                                                                                                                                              |
| <ul style="list-style-type: none"> <li>Sends <i>Service Connect Completion Message</i>.</li> <li>Sends packet data.</li> </ul>                                                                                                                                                                                                                  | Reverse Fundamental Channel           | >                           |                                                                                                                                                                                                                                              |
|                                                                                                                                                                                                                                                                                                                                                 | >                                     | >                           |                                                                                                                                                                                                                                              |
| <ul style="list-style-type: none"> <li>Mobile station has a “large” packet to send, so begins transmitting packet.</li> </ul>                                                                                                                                                                                                                   | Reverse Fundamental Channel           | <                           | <ul style="list-style-type: none"> <li>Sends packet data.</li> </ul>                                                                                                                                                                         |
|                                                                                                                                                                                                                                                                                                                                                 | <                                     | <                           |                                                                                                                                                                                                                                              |
| <i>(Continued on next page)</i>                                                                                                                                                                                                                                                                                                                 | Reverse Fundamental Channel           | >                           | <i>(Continued on next page)</i>                                                                                                                                                                                                              |

2

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**Figure B-21. Simple Call Flow, Mobile Station Termination Example with Transmission on Reverse Supplemental Code Channel(s) (Part 2 of 3)**

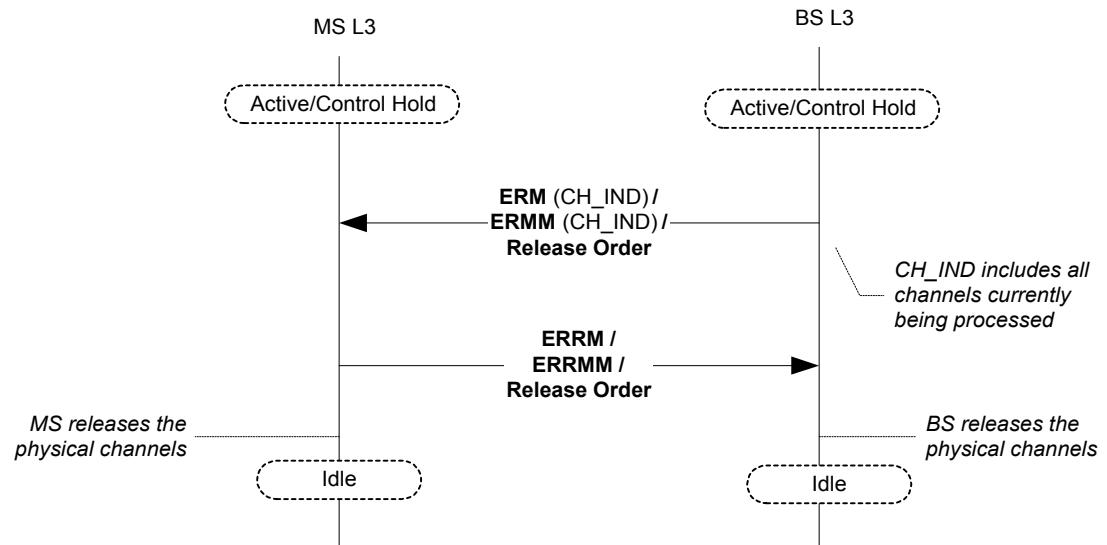
1

| <b>Mobile Station</b>                                                                                                                                                                                                                                                                                                                                                                 | <b>Base Station</b>                                                                                                    |             |                                                                                                                                                                                  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><i>(Continued from previous page)</i></p> <ul style="list-style-type: none"> <li>Sends <i>Supplemental Channel Request Message</i>, and continues transmitting on the Reverse Fundamental Channel.</li> <li>Begins transmitting on the Reverse Supplemental Code Channel(s), in addition to continuing on the Reverse Fundamental Channel.</li> </ul> <p><i>(User traffic)</i></p> | > Reverse Fundamental Channel<br>< Forward Fundamental Channel<br>> Reverse Fundamental and Supplemental Code Channels | ><br><<br>> | <p><i>(Continued from previous page)</i></p> <ul style="list-style-type: none"> <li>Send <i>Supplemental Channel Assignment Message</i>.</li> </ul> <p><i>(User traffic)</i></p> |

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**Figure B-21. Simple Call Flow, Mobile Station Termination Example with Transmission on Reverse Supplemental Code Channel(s) (Part 3 of 3)**



**Figure B-22. Active/Control Hold to Idle State Transition; Release all services (BS Initiated)**

5

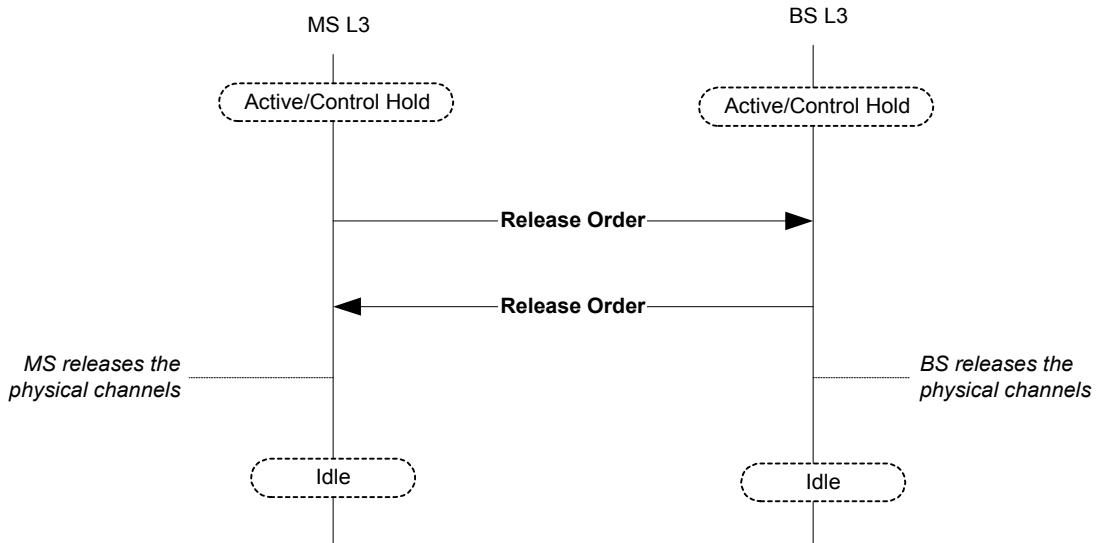
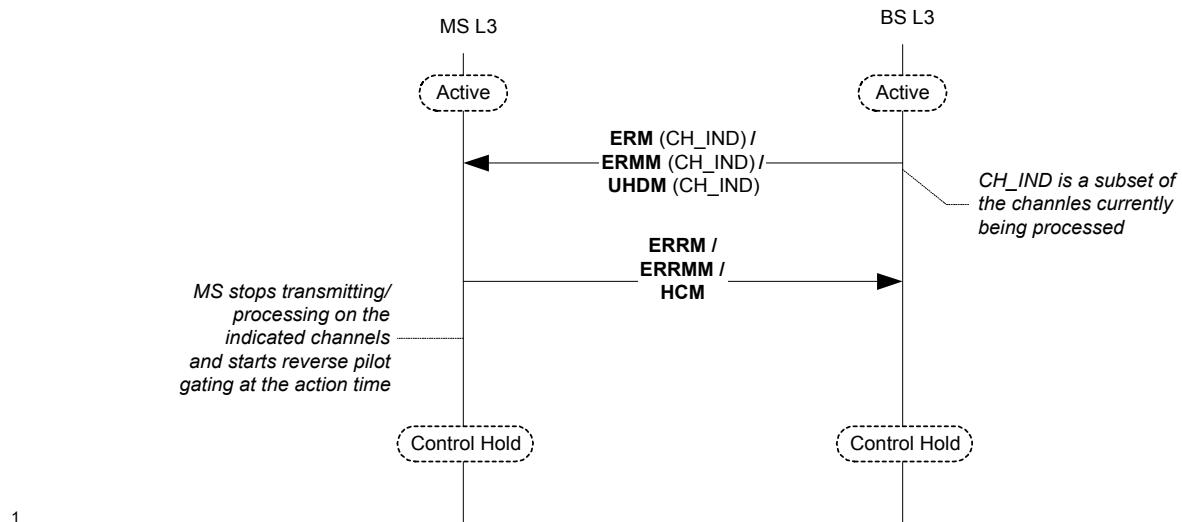


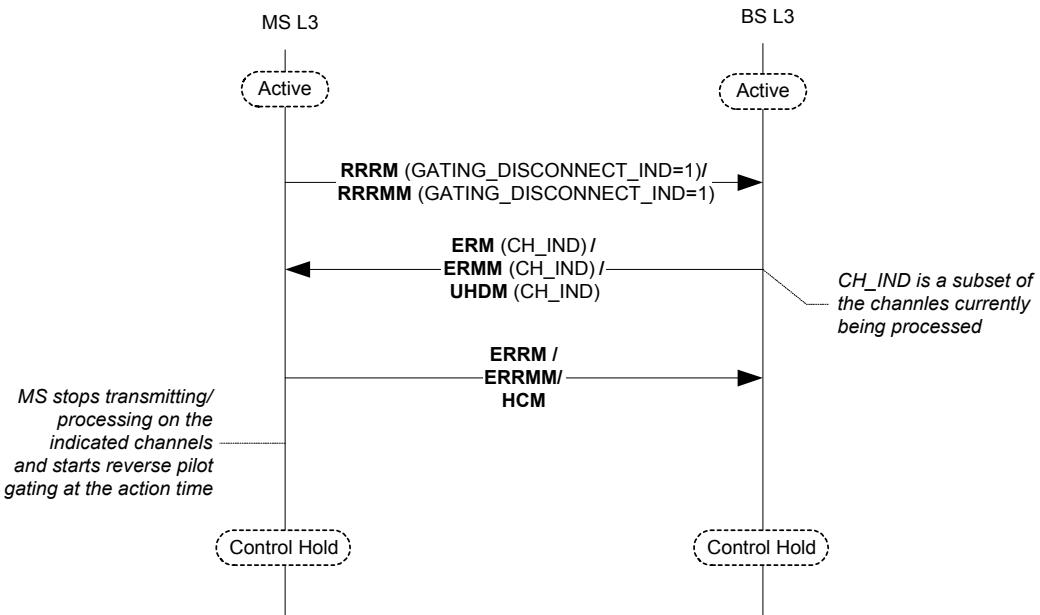
Figure B-23. Active/Control Hold to Idle State Transition; Release all services (MS Initiated)



1

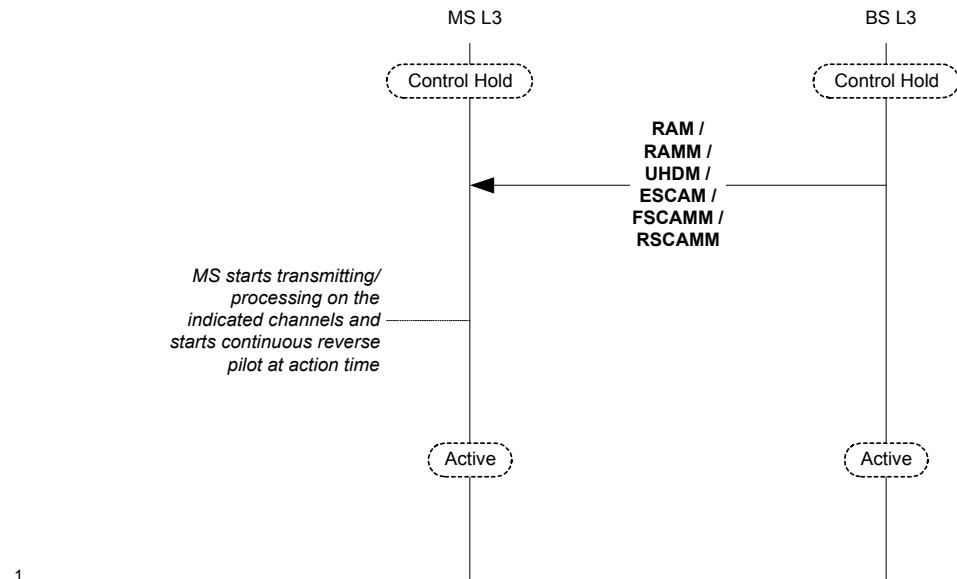
**Figure B-24. Active to Control Hold State Transition (BS Initiated)**

2

**Figure B-25. Active to Control Hold State Transition (MS Initiated)**

1

2



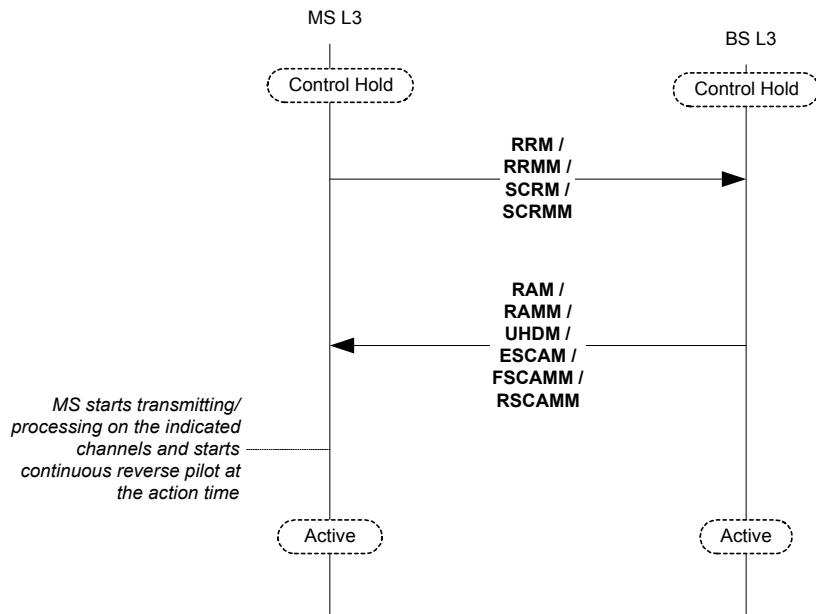
**Figure B-26. Control Hold to Active Transition (BS Initiated)**

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3

1

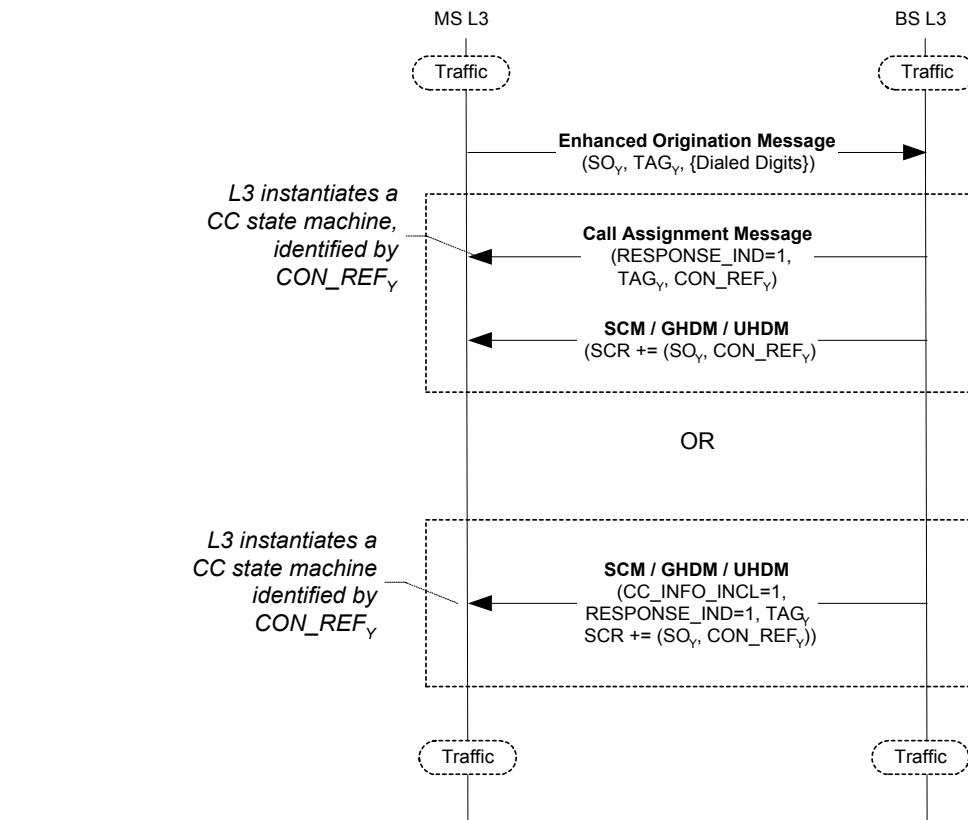


2

3

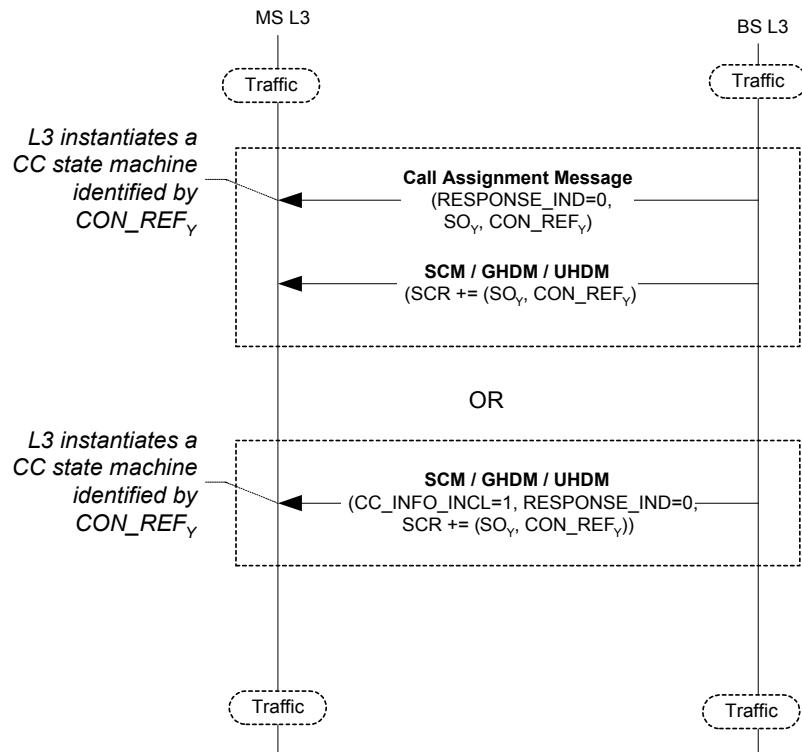
4

**Figure B-27. Control Hold to Active Transition (MS Initiated)**



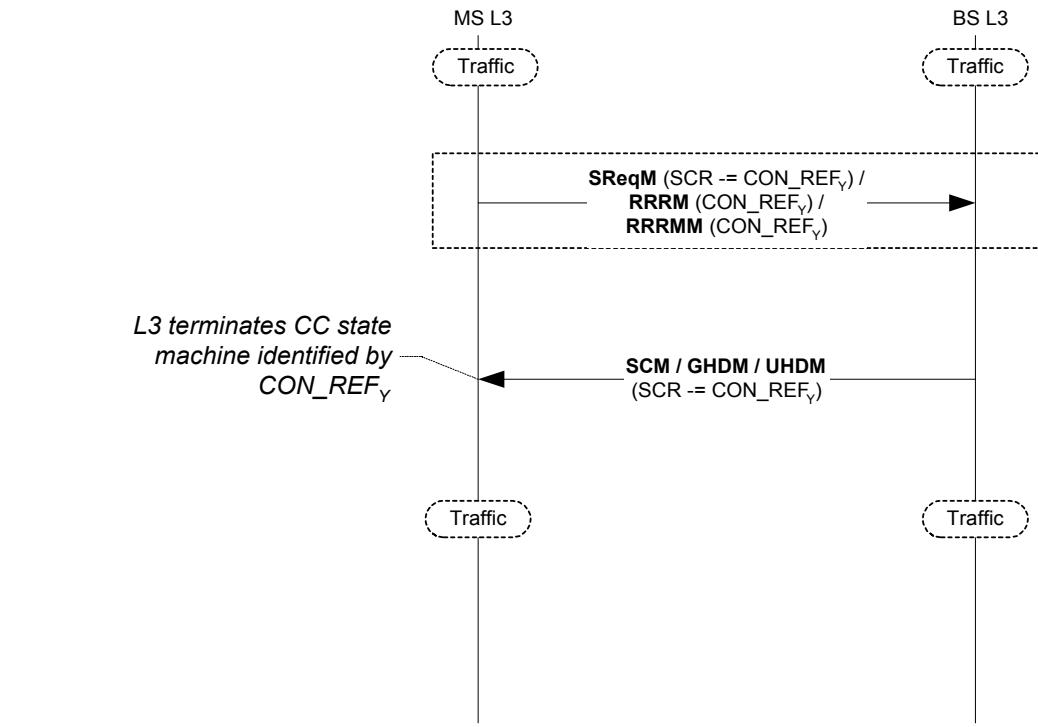
1  
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**Figure B-28. Connecting an Additional Service (MS Initiated)**



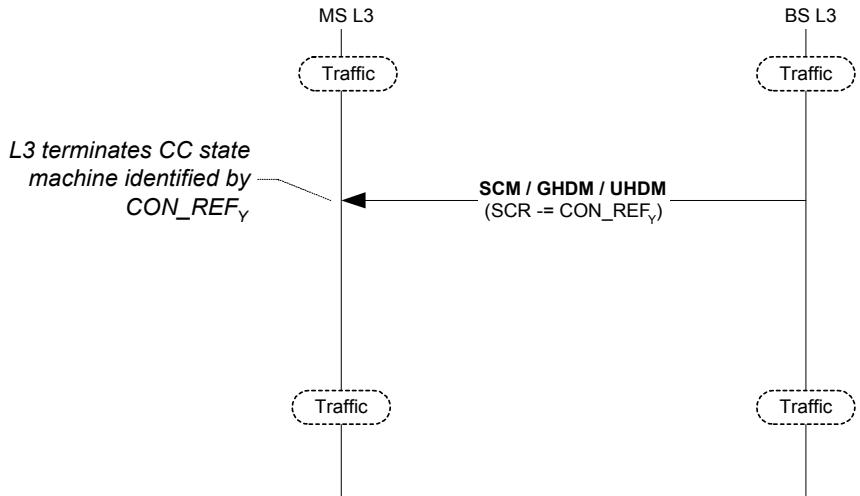
1  
2

**Figure B-29. Connecting an Additional Service (BS Initiated)**



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2  
3

**Figure B-30. Releasing a Service that is not the last one connected (MS Initiated)**



**Figure B-31. Releasing a Service that is not the last one connected (BS Initiated)**

**1 ANNEX C RESERVED**

1 No text.

1    **ANNEX D CDMA CONSTANTS**

2    Annex D is a normative annex which contains tables that give specific values for the  
 3    constant identifiers. These identifiers take the forms such as  $T_{20m}$  and  $N_{5m}$ . The  
 4    subscripted numbers vary to identify the particular constant. Typically the subscripted  
 5    letter "m" refers to the mobile station and the subscripted letter "b" refers to the base  
 6    station. The following tables provide values for identifiers given in the text:

7       Table D-1. Time Limits

8       Table D-2. Other Constants

9

10    **Table D-1. Time Limits (Part 1 of 5)**

| <b>Time Limit</b> | <b>Description</b>                                                                                                 | <b>Value</b> | <b>References</b> |
|-------------------|--------------------------------------------------------------------------------------------------------------------|--------------|-------------------|
| $T_{5m}$          | Limit of the Forward Traffic Channel fade timer                                                                    | 5 s          | 2.6.4.1.8         |
| $T_{20m}$         | Maximum time to remain in the <i>Pilot Channel Acquisition Substate of the Mobile Station Initialization State</i> | 15 s         | 2.6.1.2           |
| $T_{21m}$         | Maximum time to receive a valid Sync Channel message                                                               | 1 s          | 2.6.1.3           |
| $T_{30m}$         | Maximum time to receive a valid Paging Channel or Forward Common Control Channel/Broadcast Control Channel message | 3 s          | 2.6.2.1.1.1       |
| $T_{31m}$         | Maximum time for which configuration parameters are considered valid                                               | 600 s        | 2.6.2.2           |

**Table D-1. Time Limits (Part 2 of 5)**

| <b>Time Limit</b> | <b>Description</b>                                                                                                                                                                                                                                                                                                                      | <b>Value</b> | <b>References</b>                          |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------------------------------------|
| T <sub>32m</sub>  | Maximum time to enter the <i>Update Overhead Information Substate</i> of the <i>System Access State</i> to respond to an <i>SSD Update Message</i> , <i>Base Station Challenge Confirmation Order</i> , and <i>Authentication Challenge Message</i>                                                                                     | 5 s          | 2.6.2.4<br>2.6.4                           |
| T <sub>33m</sub>  | Maximum time to enter the <i>Update Overhead Information Substate</i> of the <i>System Access State</i> (except in response to authentication messages)                                                                                                                                                                                 | 0.3 s        | 2.6.2<br>2.6.5.5.2.3                       |
| T <sub>34m</sub>  | Maximum time to enter the <i>Update Overhead Information Substate</i> or the <i>Mobile Station Idle State</i> after receiving a <i>Channel Assignment Message</i> with <i>ASSIGN_MODE<sub>r</sub></i> equal to '001' or '101' <i>or Extended Channel Assignment Message with ASSIGN_MODE<sub>r</sub> equal to '001'</i>                 | 3 s          | 2.6.3.3                                    |
| T <sub>40m</sub>  | Maximum time to receive a valid Paging Channel or Forward Common Control Channel/Broadcast Control Channel message before aborting an access attempt (see T <sub>72m</sub> )                                                                                                                                                            | 3 s          | 2.6.3.1.8                                  |
| T <sub>41m</sub>  | Maximum time to obtain updated overhead messages arriving on the Paging Channel or Broadcast Control Channel                                                                                                                                                                                                                            | 4 s          | 2.6.3.2                                    |
| T <sub>42m</sub>  | Maximum time to receive a delayed <i>Layer 3</i> response following the receipt of an acknowledgment for an access probe in the <i>System Access State</i> .<br><br>The maximum time to receive a <i>Layer 3</i> response to an <i>Enhanced Origination Message</i> on the <i>Mobile Station Control on the Traffic Channel State</i> . | 12 s         | 2.6.3.1.1.2<br>2.6.3.3<br>2.6.3.5<br>2.6.4 |
| T <sub>50m</sub>  | Maximum time to obtain N <sub>5m</sub> consecutive good Forward Traffic Channel frames when in the <i>Traffic Channel Initialization Substate</i> of the <i>Mobile Station Control on the Traffic Channel State</i>                                                                                                                     | 1 s          | 2.6.4.2                                    |
| T <sub>51m</sub>  | Maximum time for the mobile station to receive a <i>Base Station Acknowledgment Order</i> after the first occurrence of receiving N <sub>5m</sub> consecutive good frames when in the <i>Traffic Channel Initialization Substate</i> of the <i>Mobile Station Control on the Traffic Channel State</i>                                  | 2 s          | 2.6.4.2                                    |

|                  |                                                                                                                                                                                |     |            |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------------|
| T <sub>52m</sub> | Maximum time to receive a message in the <i>Waiting for Order Substate</i> of the Call Control processing that transits Call Control instance to a different substate or state | 5 s | 2.6.10.1.1 |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------------|

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**Table D-1. Time Limits (Part 3 of 5)**

| <b>Time Limit</b> | <b>Description</b>                                                                                                                                                                                   | <b>Value</b> | <b>References</b>        |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------------------|
| T <sub>53m</sub>  | Maximum time to receive a message in the <i>Waiting for Mobile Station Answer Substate</i> of Call Control processing that transits the Call Control instance to a different substate or state       | 65 s         | 2.6.10.1.2               |
| T <sub>54m</sub>  | Maximum time for the Call Control instance to send an <i>Origination Continuation Message</i> upon entering the <i>Conversation Substate</i>                                                         | 0.2 s        | 2.6.10.2                 |
| T <sub>55m</sub>  | Maximum time to receive a message in the <i>Release Substate</i> of the <i>Mobile Station Control on the Traffic Channel State</i> that transits the mobile station to a different substate or state | 2 s          | 2.6.4.5                  |
| T <sub>56m</sub>  | Default maximum time to respond to a received message or order on the Forward Traffic Channel                                                                                                        | 0.2 s        | 2.6.4<br>2.6.6           |
| T <sub>57m</sub>  | Limit of the power-up registration timer                                                                                                                                                             | 20 s         | 2.6.5.1.1<br>2.6.5.5.1.3 |
| T <sub>58m</sub>  | Maximum time for the mobile station to respond to a service option request                                                                                                                           | 5 s          | 2.6.4.1.2.2              |
| T <sub>59m</sub>  | Maximum time for the mobile station to respond to a <i>Service Request Message</i> or a <i>Service Response Message</i>                                                                              | 5 s          | 2.6.4.1.2.2              |
| T <sub>60m</sub>  | Maximum time to execute a hard handoff without return on failure involving a new frequency assignment using the same base station                                                                    | 0.06 s       | 2.6.6.2.8.1              |
| T <sub>61m</sub>  | Maximum time to execute a hard handoff without return on failure involving a new frequency assignment using a different base station                                                                 | 0.08 s       | 2.6.6.2.8.1              |

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**Table D-1. Time Limits (Part 4 of 5)**

| <b>Time Limit</b> | <b>Description</b>                                                                                                                                                                                                                                                                           | <b>Value</b> | <b>References</b>              |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------------------------|
| T <sub>62m</sub>  | Maximum time to execute a hard handoff without return on failure involving the same frequency assignment                                                                                                                                                                                     | 0.02 s       | 2.6.6.2.8.1                    |
| T <sub>63m</sub>  | Maximum time to execute a CDMA-to-Analog handoff                                                                                                                                                                                                                                             | 0.1 s        | 2.6.6.2.9                      |
| T <sub>64m</sub>  | Maximum time to wait for a <i>Base Station Challenge Confirmation Order</i>                                                                                                                                                                                                                  | 10 s         | 2.3.12.1.5                     |
| T <sub>65m</sub>  | Maximum time for the mobile station to wait for a <i>Service Connect Message</i> while the <i>Waiting for Service Connect Message Subfunction</i> is active                                                                                                                                  | 5 s          | 2.6.4.1.2.2.4                  |
| T <sub>66m</sub>  | Maximum time for the mobile station to delete the TMSI after TMSI expiration time has exceeded the System Time                                                                                                                                                                               | 200 s        | 2.6.2                          |
| T <sub>68m</sub>  | Maximum time for the mobile station to wait for a <i>Service Request Message</i> , <i>Service Response Message</i> , or <i>Service Connect Message</i> while the <i>Waiting for Service Request Message Subfunction</i> or <i>Waiting for Service Response Message Subfunction</i> is active | 5 s          | 2.6.4.1.2.2.2<br>2.6.4.1.2.2.3 |
| T <sub>69m</sub>  | Fixed portion of the full-TMSI timer                                                                                                                                                                                                                                                         | 24 s         | 2.6.3.1.6                      |
| T <sub>70m</sub>  | Maximum time between the mobile station's obtaining a measurement and sending a <i>Candidate Frequency Search Report Message</i> which contains that measurement                                                                                                                             | 0.8 s        | 2.6.6.2.8.3<br>2.6.6.2.10      |
| T <sub>71m</sub>  | Maximum time for the mobile station to send a <i>Candidate Frequency Search Report Message</i> after completing a search                                                                                                                                                                     | 0.04 s       | 2.6.6.2.8.3                    |
| T <sub>72m</sub>  | Maximum time to receive a valid Paging Channel or Forward Common Control Channel/Broadcast Control Channel message before aborting an access attempt, when there exists at least one access handoff candidate pilot for the access attempt (see also T <sub>40m</sub> )                      | 1 s          | 2.6.3.1.8                      |
| T <sub>73m</sub>  | Maximum time for the mobile station to send a <i>Handoff Completion Message</i> after the action time of a received handoff message directing the mobile station to perform a hard handoff without return on failure                                                                         | 0.3s         | 2.6.6.2.5.2                    |
| T <sub>74m</sub>  | Default value of the slotted timer                                                                                                                                                                                                                                                           | 0.0s         | 2.6.4.2                        |

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**Table D-1. Time Limits (Part 5 of 5)**

| <b>Time Limit</b> | <b>Description</b>                                                                                                      | <b>Value</b> | <b>References</b> |
|-------------------|-------------------------------------------------------------------------------------------------------------------------|--------------|-------------------|
| T <sub>1b</sub>   | Maximum period between subsequent transmissions of an overhead message on the Paging Channel by the base station        | 1.28 s       | 3.6.2.2           |
| T <sub>2b</sub>   | Maximum time for the base station to send a <i>Release Order</i> after receiving a <i>Release Order</i>                 | 0.8 s        | 3.6.4             |
| T <sub>3b</sub>   | Minimum time the base station continues to transmit on a code channel after sending or receiving a <i>Release Order</i> | 0.3 s        | 3.6.4.5           |
| T <sub>4b</sub>   | Maximum time for the base station to respond to a service option request                                                | 5 s          | 3.6.4.1.2.2.1     |

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**Table D-2. Other Constants**

| <b>Con-stant</b> | <b>Description</b>                                                                                                                                                                                                                                                                                                        | <b>Value</b> | <b>References</b>                                                     |
|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-----------------------------------------------------------------------|
| N <sub>2m</sub>  | The duration, of insufficient signal quality (e.g. bad frames), in units of 20ms, received on the Forward Traffic Channel before a mobile station must disable its transmitter                                                                                                                                            | 12           | 2.6.4.1.8                                                             |
| N <sub>3m</sub>  | The duration, of sufficient signal quality (e.g. good frames), in units of 20ms, received on the Forward Traffic Channel before a mobile station is allowed to re-enable its transmitter after disabling its transmitter                                                                                                  | 2            | 2.6.4.1.8                                                             |
| N <sub>4m</sub>  | Reserved                                                                                                                                                                                                                                                                                                                  |              |                                                                       |
| N <sub>5m</sub>  | The duration, of sufficient signal quality (e.g. good frames), in units of 20ms, received on the Forward Traffic Channel before a mobile station is allowed to enable its transmitter after entering the <i>Traffic Channel Initialization Substate</i> of the <i>Mobile Station Control on the Traffic Channel State</i> | 2            | 2.6.4.2                                                               |
| N <sub>6m</sub>  | Supported Traffic Channel Active Set size                                                                                                                                                                                                                                                                                 | 6            | 2.6.6.2.6.1<br>3.6.6.2.2.2<br>3.6.6.2.2.10                            |
| N <sub>7m</sub>  | Supported Traffic Channel Candidate Set size                                                                                                                                                                                                                                                                              | 10           | 2.6.6.2.6.2                                                           |
| N <sub>8m</sub>  | Minimum supported Neighbor Set size                                                                                                                                                                                                                                                                                       | 40           | 2.6.2.1.4.1<br>2.6.2.2.3<br>2.6.6.2.6.3<br>3.6.6.2.1.2<br>3.6.6.2.1.3 |
| N <sub>9m</sub>  | Minimum supported zone list size                                                                                                                                                                                                                                                                                          | 7            | 2.6.5.1.5                                                             |
| N <sub>10m</sub> | SID/NID list size                                                                                                                                                                                                                                                                                                         | 4            | 2.6.5                                                                 |
| N <sub>11m</sub> | The duration, of sufficient signal quality (e.g. good frames), in units of 20ms, received on the Forward Traffic Channel before a mobile station re-enables its transmitter after disabling its transmitter during a CDMA-to-CDMA Hard Handoff                                                                            | 1            | 2.6.6.2.8                                                             |
| N <sub>12m</sub> | Number of frames over which the mobile station maintains a running average of the total received power                                                                                                                                                                                                                    | 10           | 2.6.6.2.8.3                                                           |
| N <sub>13m</sub> | Maximum number of pilots reported in an Access Channel message                                                                                                                                                                                                                                                            | 6            | 2.6.3.1.7<br>2.7.1.3.1.3                                              |

1

2 No text.

3

1   **ANNEX E CDMA RETRIEVABLE AND SETTABLE PARAMETERS**

2   This is a normative annex which describes the parameters that can be retrieved and set in  
3   the mobile station using the *Retrieve Parameters Message*, the *Parameters Response*  
4   *Message*, and the *Set Parameters Message*.

5   PARAMETER\_ID values from 0 through 32767 are reserved for definition by this standard  
6   and shall not be defined by mobile station manufacturers. PARAMETER\_ID values from  
7   32768 through 65535 may be defined by mobile station manufacturers.

**Table E-1. Retrievable and Settable Parameters (Part 1 of 19)**

| <b>Parameter Identifier</b> | <b>Value of PARA-METER_ID (decimal)</b> | <b>Length (bits)<br/>(PARA-METER_LEN is Length - 1)</b> | <b>Support Required? (Y or N)</b> | <b>Settable Parameter? (Y or N)</b> | <b>Reference Section</b> |
|-----------------------------|-----------------------------------------|---------------------------------------------------------|-----------------------------------|-------------------------------------|--------------------------|
| MUX1_REV_FCH_1              | 1                                       | 24                                                      | Y                                 | Y                                   | [3]                      |
| MUX1_REV_FCH_2              | 2                                       | 24                                                      | Y                                 | Y                                   | [3]                      |
| MUX1_REV_FCH_3              | 3                                       | 24                                                      | Y                                 | Y                                   | [3]                      |
| MUX1_REV_FCH_4              | 4                                       | 24                                                      | Y                                 | Y                                   | [3]                      |
| MUX1_REV_FCH_5              | 5                                       | 24                                                      | Y                                 | Y                                   | [3]                      |
| MUX1_REV_FCH_6              | 6                                       | 24                                                      | Y                                 | Y                                   | [3]                      |
| MUX1_REV_FCH_7              | 7                                       | 24                                                      | Y                                 | Y                                   | [3]                      |
| MUX1_REV_FCH_8              | 8                                       | 24                                                      | Y                                 | Y                                   | [3]                      |
| MUX1_REV_FCH_9              | 9                                       | N/A                                                     | N/A                               | N/A                                 | [3]                      |
| MUX1_REV_FCH_10             | 10                                      | N/A                                                     | N/A                               | N/A                                 | [3]                      |
| MUX1_REV_FCH_11             | 11                                      | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX1_REV_FCH_12             | 12                                      | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX1_REV_FCH_13             | 13                                      | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX1_REV_FCH_14             | 14                                      | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX1_FOR_FCH_1              | 15                                      | 24                                                      | Y                                 | Y                                   | [3]                      |
| MUX1_FOR_FCH_2              | 16                                      | 24                                                      | Y                                 | Y                                   | [3]                      |
| MUX1_FOR_FCH_3              | 17                                      | 24                                                      | Y                                 | Y                                   | [3]                      |
| MUX1_FOR_FCH_4              | 18                                      | 24                                                      | Y                                 | Y                                   | [3]                      |
| MUX1_FOR_FCH_5              | 19                                      | 24                                                      | Y                                 | Y                                   | [3]                      |
| MUX1_FOR_FCH_6              | 20                                      | 24                                                      | Y                                 | Y                                   | [3]                      |
| MUX1_FOR_FCH_7              | 21                                      | 24                                                      | Y                                 | Y                                   | [3]                      |
| MUX1_FOR_FCH_8              | 22                                      | 24                                                      | Y                                 | Y                                   | [3]                      |

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**Table E-1. Retrievable and Settable Parameters (Part 2 of 19)**

| <b>Parameter Identifier</b> | <b>Value of PARA-METER_ID (decimal)</b> | <b>Length (bits) (PARA-METER_LEN is Length - 1)</b> | <b>Support Required? (Y or N)</b> | <b>Settable Parameter? (Y or N)</b> | <b>Reference Section</b> |
|-----------------------------|-----------------------------------------|-----------------------------------------------------|-----------------------------------|-------------------------------------|--------------------------|
| MUX1_FOR_FCH_9              | 23                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX1_FOR_FCH_10             | 24                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX1_FOR_FCH_11             | 25                                      | 24                                                  | N                                 | Y                                   | [3]                      |
| MUX1_FOR_FCH_12             | 26                                      | 24                                                  | N                                 | Y                                   | [3]                      |
| MUX1_FOR_FCH_13             | 27                                      | 24                                                  | N                                 | Y                                   | [3]                      |
| MUX1_FOR_FCH_14             | 28                                      | 24                                                  | N                                 | Y                                   | [3]                      |
| PAG_1                       | 29                                      | 24                                                  | Y                                 | Y                                   | [4]                      |
| PAG_2                       | 30                                      | 24                                                  | Y                                 | Y                                   | [4]                      |
| PAG_3                       | 31                                      | 16                                                  | Y                                 | Y                                   | [4]                      |
| PAG_4                       | 32                                      | 24                                                  | Y                                 | Y                                   | [4]                      |
| PAG_5                       | 33                                      | 24                                                  | Y                                 | Y                                   | [4]                      |
| PAG_6                       | 34                                      | 16                                                  | Y                                 | Y                                   | 2.4                      |
| PAG_7                       | 35                                      | 16                                                  | Y                                 | Y                                   | 2.4                      |
| ACC_1                       | 36                                      | 16                                                  | Y                                 | Y                                   | [4]                      |
| ACC_2                       | 37                                      | 16                                                  | Y                                 | Y                                   | [4]                      |
| ACC_3                       | 38                                      | 16                                                  | Y                                 | Y                                   | [4]                      |
| ACC_4                       | 39                                      | 16                                                  | Y                                 | Y                                   | [4]                      |
| ACC_5                       | 40                                      | 16                                                  | Y                                 | Y                                   | [4]                      |
| ACC_6                       | 41                                      | 16                                                  | Y                                 | Y                                   | [4]                      |
| ACC_7                       | 42                                      | 16                                                  | Y                                 | Y                                   | [4]                      |
| ACC_8                       | 43                                      | 16                                                  | Y                                 | Y                                   | [4]                      |
| LAYER2_RTC1                 | 44                                      | 16                                                  | Y                                 | Y                                   | [4]                      |
| LAYER2_RTC2                 | 45                                      | 16                                                  | Y                                 | Y                                   | [4]                      |
| LAYER2_RTC3                 | 46                                      | 16                                                  | Y                                 | Y                                   | [4]                      |
| LAYER2_RTC4                 | 47                                      | 16                                                  | Y                                 | Y                                   | [4]                      |
| LAYER2_RTC5                 | 48                                      | 16                                                  | Y                                 | Y                                   | [4]                      |
| OTHER_SYS_TIME              | 49                                      | 36                                                  | Y                                 | N                                   | 2.4                      |

2

**Table E-1. Retrievable and Settable Parameters (Part 3 of 19)**

| <b>Parameter Identifier</b> | <b>Value of PARA-METER_ID (decimal)</b> | <b>Length (bits) (PARA-METER_LEN is Length - 1)</b> | <b>Support Required? (Y or N)</b> | <b>Settable Parameter? (Y or N)</b> | <b>Reference Section</b> |
|-----------------------------|-----------------------------------------|-----------------------------------------------------|-----------------------------------|-------------------------------------|--------------------------|
| MUX2_REV_FCH_1              | 50                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_REV_FCH_2              | 51                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_REV_FCH_3              | 52                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_REV_FCH_4              | 53                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_REV_FCH_5              | 54                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_REV_FCH_6              | 55                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_REV_FCH_7              | 56                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_REV_FCH_8              | 57                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_REV_FCH_9              | 58                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_REV_FCH_10             | 59                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_REV_FCH_11             | 60                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_REV_FCH_12             | 61                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_REV_FCH_13             | 62                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_REV_FCH_14             | 63                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_REV_FCH_15             | 64                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_REV_FCH_16             | 65                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_REV_FCH_17             | 66                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_REV_FCH_18             | 67                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_REV_FCH_19             | 68                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_REV_FCH_20             | 69                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_REV_FCH_21             | 70                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_REV_FCH_22             | 71                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_REV_FCH_23             | 72                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_REV_FCH_24             | 73                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_REV_FCH_25             | 74                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_REV_FCH_26             | 75                                      | N/A                                                 | N/A                               | N/A                                 | [3]                      |

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**Table E-1. Retrievable and Settable Parameters (Part 4 of 19)**

| <b>Parameter Identifier</b> | <b>Value of PARA-METER_ID (decimal)</b> | <b>Length (bits) (PARA-METER_LEN is Length - 1)</b> | <b>Support Required? (Y or N)</b> | <b>Settable Parameter? (Y or N)</b> | <b>Reference Section</b> |
|-----------------------------|-----------------------------------------|-----------------------------------------------------|-----------------------------------|-------------------------------------|--------------------------|
| MUX2_FOR_FCH_1              | 76                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_FOR_FCH_2              | 77                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_FOR_FCH_3              | 78                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_FOR_FCH_4              | 79                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_FOR_FCH_5              | 80                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_FOR_FCH_6              | 81                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_FOR_FCH_7              | 82                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_FOR_FCH_8              | 83                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_FOR_FCH_9              | 84                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_FOR_FCH_10             | 85                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_FOR_FCH_11             | 86                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_FOR_FCH_12             | 87                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_FOR_FCH_13             | 88                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_FOR_FCH_14             | 89                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_FOR_FCH_15             | 90                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_FOR_FCH_16             | 91                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_FOR_FCH_17             | 92                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_FOR_FCH_18             | 93                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_FOR_FCH_19             | 94                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_FOR_FCH_20             | 95                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_FOR_FCH_21             | 96                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_FOR_FCH_22             | 97                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_FOR_FCH_23             | 98                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_FOR_FCH_24             | 99                                      | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_FOR_FCH_25             | 100                                     | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_FOR_FCH_26             | 101                                     | 24                                                  | Y                                 | Y                                   | [3]                      |

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**Table E-1. Retrievable and Settable Parameters (Part 5 of 19)**

| <b>Parameter Identifier</b> | <b>Value of PARA-METER_ID (decimal)</b> | <b>Length (bits) (PARA-METER_LEN is Length - 1)</b> | <b>Support Required? (Y or N)</b> | <b>Settable Parameter? (Y or N)</b> | <b>Reference Section</b> |
|-----------------------------|-----------------------------------------|-----------------------------------------------------|-----------------------------------|-------------------------------------|--------------------------|
| SCCH1_REV_S                 | 102                                     | 24                                                  | Y                                 | Y                                   | [3]                      |
| SCCH1_REV_P                 | 103                                     | 24                                                  | Y                                 | Y                                   | [3]                      |
| SCCH2_REV_S                 | 104                                     | 24                                                  | Y                                 | Y                                   | [3]                      |
| SCCH2_REV_P                 | 105                                     | 24                                                  | Y                                 | Y                                   | [3]                      |
| SCCH3_REV_S                 | 106                                     | 24                                                  | Y                                 | Y                                   | [3]                      |
| SCCH3_REV_P                 | 107                                     | 24                                                  | Y                                 | Y                                   | [3]                      |
| SCCH4_REV_S                 | 108                                     | 24                                                  | Y                                 | Y                                   | [3]                      |
| SCCH4_REV_P                 | 109                                     | 24                                                  | Y                                 | Y                                   | [3]                      |
| SCCH5_REV_S                 | 110                                     | 24                                                  | Y                                 | Y                                   | [3]                      |
| SCCH5_REV_P                 | 111                                     | 24                                                  | Y                                 | Y                                   | [3]                      |
| SCCH6_REV_S                 | 112                                     | 24                                                  | Y                                 | Y                                   | [3]                      |
| SCCH6_REV_P                 | 113                                     | 24                                                  | Y                                 | Y                                   | [3]                      |
| SCCH7_REV_S                 | 114                                     | 24                                                  | Y                                 | Y                                   | [3]                      |
| SCCH7_REV_P                 | 115                                     | 24                                                  | Y                                 | Y                                   | [3]                      |
| SCCH1_FOR_S                 | 116                                     | 24                                                  | Y                                 | Y                                   | [3]                      |
| SCCH1_FOR_P                 | 117                                     | 24                                                  | Y                                 | Y                                   | [3]                      |
| SCCH2_FOR_S                 | 118                                     | 24                                                  | Y                                 | Y                                   | [3]                      |
| SCCH2_FOR_P                 | 119                                     | 24                                                  | Y                                 | Y                                   | [3]                      |
| SCCH3_FOR_S                 | 120                                     | 24                                                  | Y                                 | Y                                   | [3]                      |
| SCCH3_FOR_P                 | 121                                     | 24                                                  | Y                                 | Y                                   | [3]                      |
| SCCH4_FOR_S                 | 122                                     | 24                                                  | Y                                 | Y                                   | [3]                      |
| SCCH4_FOR_P                 | 123                                     | 24                                                  | Y                                 | Y                                   | [3]                      |
| SCCH5_FOR_S                 | 124                                     | 24                                                  | Y                                 | Y                                   | [3]                      |
| SCCH5_FOR_P                 | 125                                     | 24                                                  | Y                                 | Y                                   | [3]                      |
| SCCH6_FOR_S                 | 126                                     | 24                                                  | Y                                 | Y                                   | [3]                      |
| SCCH6_FOR_P                 | 127                                     | 24                                                  | Y                                 | Y                                   | [3]                      |
| SCCH7_FOR_S                 | 128                                     | 24                                                  | Y                                 | Y                                   | [3]                      |
| SCCH7_FOR_P                 | 129                                     | 24                                                  | Y                                 | Y                                   | [3]                      |

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**Table E-1. Retrievable and Settable Parameters (Part 6 of 19)**

| <b>Parameter Identifier</b> | <b>Value of PARA-METER_ID (decimal)</b> | <b>Length (bits)<br/>(PARA-METER_LEN is Length - 1)</b> | <b>Support Required? (Y or N)</b> | <b>Settable Parameter? (Y or N)</b> | <b>Reference Section</b> |
|-----------------------------|-----------------------------------------|---------------------------------------------------------|-----------------------------------|-------------------------------------|--------------------------|
| MM_RTC1                     | 130                                     | 16                                                      | Y                                 | Y                                   | [4]                      |
| MM_RTC2                     | 131                                     | 16                                                      | Y                                 | Y                                   | [4]                      |
| MM_RTC3                     | 132                                     | 16                                                      | Y                                 | Y                                   | [4]                      |
| MM_RTC4                     | 133                                     | 16                                                      | Y                                 | Y                                   | [4]                      |
| MM_RTC5                     | 134                                     | 16                                                      | Y                                 | Y                                   | [4]                      |
| MUX1_REV_FCH_15             | 135                                     | N/A                                                     | N/A                               | N/A                                 | [3]                      |
| MUX1_REV_FCH_5_ms           | 136                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX1_FOR_FCH_15             | 137                                     | N/A                                                     | N/A                               | N/A                                 | [3]                      |
| MUX1_FOR_FCH_5_ms           | 138                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX2_REV_FCH_27             | 139                                     | N/A                                                     | N/A                               | N/A                                 | [3]                      |
| MUX2_REV_FCH_5_ms           | 140                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX2_FOR_FCH_27             | 141                                     | N/A                                                     | N/A                               | N/A                                 | [3]                      |
| MUX2_FOR_FCH_5_ms           | 142                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX1_REV_DCCH_1             | 143                                     | 24                                                      | Y                                 | Y                                   | [3]                      |
| MUX1_REV_DCCH_2             | 144                                     | 24                                                      | Y                                 | Y                                   | [3]                      |
| MUX1_REV_DCCH_3             | 145                                     | 24                                                      | Y                                 | Y                                   | [3]                      |
| MUX1_REV_DCCH_4             | 146                                     | 24                                                      | Y                                 | Y                                   | [3]                      |
| MUX1_REV_DCCH_5             | 147                                     | 24                                                      | Y                                 | Y                                   | [3]                      |
| MUX1_REV_DCCH_6             | 148                                     | N/A                                                     | N/A                               | N/A                                 | [3]                      |
| MUX1_REV_DCCH_7             | 149                                     | N/A                                                     | N/A                               | N/A                                 | [3]                      |
| MUX1_REV_DCCH_8             | 150                                     | N/A                                                     | N/A                               | N/A                                 | [3]                      |
| MUX1_REV_DCCH_9             | 151                                     | N/A                                                     | N/A                               | N/A                                 | [3]                      |
| MUX1_REV_DCCH_10            | 152                                     | N/A                                                     | N/A                               | N/A                                 | [3]                      |
| MUX1_REV_DCCH_11            | 153                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX1_REV_DCCH_12            | 154                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX1_REV_DCCH_13            | 155                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX1_REV_DCCH_14            | 156                                     | 24                                                      | N                                 | Y                                   | [3]                      |

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**Table E-1. Retrievable and Settable Parameters (Part 7 of 19)**

| Parameter Identifier | Value of PARA-METER_ID (decimal) | Length (bits) (PARA-METER_LEN is Length - 1) | Support Required? (Y or N) | Settable Parameter? (Y or N) | Reference Section |
|----------------------|----------------------------------|----------------------------------------------|----------------------------|------------------------------|-------------------|
| MUX1_REV_DCCH_15     | 157                              | 24                                           | Y                          | Y                            | [3]               |
| MUX1_REV_DCCH_5_ms   | 158                              | 24                                           | N                          | Y                            | [3]               |
| MUX1_FOR_DCCH_1      | 159                              | 24                                           | Y                          | Y                            | [3]               |
| MUX1_FOR_DCCH_2      | 160                              | 24                                           | Y                          | Y                            | [3]               |
| MUX1_FOR_DCCH_3      | 161                              | 24                                           | Y                          | Y                            | [3]               |
| MUX1_FOR_DCCH_4      | 162                              | 24                                           | Y                          | Y                            | [3]               |
| MUX1_FOR_DCCH_5      | 163                              | 24                                           | Y                          | Y                            | [3]               |
| MUX1_FOR_DCCH_6      | 164                              | N/A                                          | N/A                        | N/A                          | [3]               |
| MUX1_FOR_DCCH_7      | 165                              | N/A                                          | N/A                        | N/A                          | [3]               |
| MUX1_FOR_DCCH_8      | 166                              | N/A                                          | N/A                        | N/A                          | [3]               |
| MUX1_FOR_DCCH_9      | 167                              | 24N/A                                        | YN/A                       | YN/A                         | [3]               |
| MUX1_FOR_DCCH_10     | 168                              | 24                                           | Y                          | Y                            | [3]               |
| MUX1_FOR_DCCH_11     | 169                              | 24                                           | N                          | Y                            | [3]               |
| MUX1_FOR_DCCH_12     | 170                              | 24                                           | N                          | Y                            | [3]               |
| MUX1_FOR_DCCH_13     | 171                              | 24                                           | N                          | Y                            | [3]               |
| MUX1_FOR_DCCH_14     | 172                              | 24                                           | N                          | Y                            | [3]               |
| MUX1_FOR_DCCH_15     | 173                              | 24                                           | Y                          | Y                            | [3]               |
| MUX1_FOR_DCCH_5_ms   | 174                              | 24                                           | N                          | Y                            | [3]               |
| MUX2_REV_DCCH_1      | 175                              | 24                                           | Y                          | Y                            | [3]               |
| MUX2_REV_DCCH_2      | 176                              | 24                                           | Y                          | Y                            | [3]               |
| MUX2_REV_DCCH_3      | 177                              | 24                                           | Y                          | Y                            | [3]               |
| MUX2_REV_DCCH_4      | 178                              | 24                                           | Y                          | Y                            | [3]               |
| MUX2_REV_DCCH_5      | 179                              | 24                                           | Y                          | Y                            | [3]               |
| MUX2_REV_DCCH_6      | 180                              | 24                                           | Y                          | Y                            | [3]               |
| MUX2_REV_DCCH_7      | 181                              | 24                                           | Y                          | Y                            | [3]               |
| MUX2_REV_DCCH_8      | 182                              | 24                                           | Y                          | Y                            | [3]               |
| MUX2_REV_DCCH_9      | 183                              | 24                                           | Y                          | Y                            | [3]               |

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**Table E-1. Retrievable and Settable Parameters (Part 8 of 19)**

| <b>Parameter Identifier</b> | <b>Value of PARA-METER_ID (decimal)</b> | <b>Length (bits)<br/>(PARA-METER_LEN is Length - 1)</b> | <b>Support Required? (Y or N)</b> | <b>Settable Parameter? (Y or N)</b> | <b>Reference Section</b> |
|-----------------------------|-----------------------------------------|---------------------------------------------------------|-----------------------------------|-------------------------------------|--------------------------|
| MUX2_REV_DCCH_10            | 184                                     | 24                                                      | Y                                 | Y                                   | [3]                      |
| MUX2_REV_DCCH_11            | 185                                     | N/A                                                     | N/A                               | N/A                                 | [3]                      |
| MUX2_REV_DCCH_12            | 186                                     | N/A                                                     | N/A                               | N/A                                 | [3]                      |
| MUX2_REV_DCCH_13            | 187                                     | N/A                                                     | N/A                               | N/A                                 | [3]                      |
| MUX2_REV_DCCH_14            | 188                                     | N/A                                                     | N/A                               | N/A                                 | [3]                      |
| MUX2_REV_DCCH_15            | 189                                     | N/A                                                     | N/A                               | N/A                                 | [3]                      |
| MUX2_REV_DCCH_16            | 190                                     | N/A                                                     | N/A                               | N/A                                 | [3]                      |
| MUX2_REV_DCCH_17            | 191                                     | N/A                                                     | N/A                               | N/A                                 | [3]                      |
| MUX2_REV_DCCH_18            | 192                                     | N/A                                                     | N/A                               | N/A                                 | [3]                      |
| MUX2_REV_DCCH_19            | 193                                     | N/A                                                     | N/A                               | N/A                                 | [3]                      |
| MUX2_REV_DCCH_20            | 194                                     | N/A                                                     | N/A                               | N/A                                 | [3]                      |
| MUX2_REV_DCCH_21            | 195                                     | N/A                                                     | N/A                               | N/A                                 | [3]                      |
| MUX2_REV_DCCH_22            | 196                                     | N/A                                                     | N/A                               | N/A                                 | [3]                      |
| MUX2_REV_DCCH_23            | 197                                     | N/A                                                     | N/A                               | N/A                                 | [3]                      |
| MUX2_REV_DCCH_24            | 198                                     | N/A                                                     | N/A                               | N/A                                 | [3]                      |
| MUX2_REV_DCCH_25            | 199                                     | N/A                                                     | N/A                               | N/A                                 | [3]                      |
| MUX2_REV_DCCH_26            | 200                                     | N/A                                                     | N/A                               | N/A                                 | [3]                      |
| MUX2_REV_DCCH_27            | 201                                     | 24                                                      | Y                                 | Y                                   | [3]                      |
| MUX2_REV_DCCH_5_ms          | 202                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX2_FOR_DCCH_1             | 203                                     | 24                                                      | Y                                 | Y                                   | [3]                      |
| MUX2_FOR_DCCH_2             | 204                                     | 24                                                      | Y                                 | Y                                   | [3]                      |
| MUX2_FOR_DCCH_3             | 205                                     | 24                                                      | Y                                 | Y                                   | [3]                      |
| MUX2_FOR_DCCH_4             | 206                                     | 24                                                      | Y                                 | Y                                   | [3]                      |
| MUX2_FOR_DCCH_5             | 207                                     | 24                                                      | Y                                 | Y                                   | [3]                      |
| MUX2_FOR_DCCH_6             | 208                                     | 24                                                      | Y                                 | Y                                   | [3]                      |
| MUX2_FOR_DCCH_7             | 209                                     | 24                                                      | Y                                 | Y                                   | [3]                      |
| MUX2_FOR_DCCH_8             | 210                                     | 24                                                      | Y                                 | Y                                   | [3]                      |
| MUX2_FOR_DCCH_9             | 211                                     | 24                                                      | Y                                 | Y                                   | [3]                      |

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**Table E-1. Retrievable and Settable Parameters (Part 9 of 19)**

| <b>Parameter Identifier</b> | <b>Value of PARA-METER_ID (decimal)</b> | <b>Length (bits) (PARA-METER_LEN is Length - 1)</b> | <b>Support Required? (Y or N)</b> | <b>Settable Parameter? (Y or N)</b> | <b>Reference Section</b> |
|-----------------------------|-----------------------------------------|-----------------------------------------------------|-----------------------------------|-------------------------------------|--------------------------|
| MUX2_FOR_DCCH_10            | 212                                     | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_FOR_DCCH_11            | 213                                     | N/A                                                 | N/A                               | N/A                                 | [3]                      |
| MUX2_FOR_DCCH_12            | 214                                     | N/A                                                 | N/A                               | N/A                                 | [3]                      |
| MUX2_FOR_DCCH_13            | 215                                     | N/A                                                 | N/A                               | N/A                                 | [3]                      |
| MUX2_FOR_DCCH_14            | 216                                     | N/A                                                 | N/A                               | N/A                                 | [3]                      |
| MUX2_FOR_DCCH_15            | 217                                     | N/A                                                 | N/A                               | N/A                                 | [3]                      |
| MUX2_FOR_DCCH_16            | 218                                     | N/A                                                 | N/A                               | N/A                                 | [3]                      |
| MUX2_FOR_DCCH_17            | 219                                     | N/A                                                 | N/A                               | N/A                                 | [3]                      |
| MUX2_FOR_DCCH_18            | 220                                     | N/A                                                 | N/A                               | N/A                                 | [3]                      |
| MUX2_FOR_DCCH_19            | 221                                     | N/A                                                 | N/A                               | N/A                                 | [3]                      |
| MUX2_FOR_DCCH_20            | 222                                     | N/A                                                 | N/A                               | N/A                                 | [3]                      |
| MUX2_FOR_DCCH_21            | 223                                     | N/A                                                 | N/A                               | N/A                                 | [3]                      |
| MUX2_FOR_DCCH_22            | 224                                     | N/A                                                 | N/A                               | N/A                                 | [3]                      |
| MUX2_FOR_DCCH_23            | 225                                     | N/A                                                 | N/A                               | N/A                                 | [3]                      |
| MUX2_FOR_DCCH_24            | 226                                     | N/A                                                 | N/A                               | N/A                                 | [3]                      |
| MUX2_FOR_DCCH_25            | 227                                     | N/A                                                 | N/A                               | N/A                                 | [3]                      |
| MUX2_FOR_DCCH_26            | 228                                     | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_FOR_DCCH_27            | 229                                     | 24                                                  | Y                                 | Y                                   | [3]                      |
| MUX2_FOR_DCCH_5_ms          | 230                                     | 24                                                  | N                                 | Y                                   | [3]                      |
| SCH0_REV_1X                 | 231                                     | 24                                                  | Y                                 | Y                                   | [3]                      |
| SCH0_REV_2X                 | 232                                     | 24                                                  | Y                                 | Y                                   | [3]                      |
| SCH0_REV_4X                 | 233                                     | 24                                                  | Y                                 | Y                                   | [3]                      |
| SCH0_REV_8X                 | 234                                     | 24                                                  | Y                                 | Y                                   | [3]                      |
| SCH0_REV_16X                | 235                                     | 24                                                  | Y                                 | Y                                   | [3]                      |
| SCH0_REV_LTU                | 236                                     | 24                                                  | Y                                 | Y                                   | [3]                      |
| SCH0_REV_LTUOK              | 237                                     | N/A                                                 | N/A                               | N/A                                 | [3]                      |
| SCH1_REV_1X                 | 238                                     | 24                                                  | Y                                 | Y                                   | [3]                      |
| SCH1_REV_2X                 | 239                                     | 24                                                  | Y                                 | Y                                   | [3]                      |

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**Table E-1. Retrievable and Settable Parameters (Part 10 of 19)**

| <b>Parameter Identifier</b> | <b>Value of PARA-METER_ID (decimal)</b> | <b>Length (bits)<br/>(PARA-METER_LEN is Length - 1)</b> | <b>Support Required? (Y or N)</b> | <b>Settable Parameter? (Y or N)</b> | <b>Reference Section</b> |
|-----------------------------|-----------------------------------------|---------------------------------------------------------|-----------------------------------|-------------------------------------|--------------------------|
| SCH1_REV_4X                 | 240                                     | 24                                                      | Y                                 | Y                                   | [3]                      |
| SCH1_REV_8X                 | 241                                     | 24                                                      | Y                                 | Y                                   | [3]                      |
| SCH1_REV_16X                | 242                                     | 24                                                      | Y                                 | Y                                   | [3]                      |
| SCH1_REV_LTU                | 243                                     | 24                                                      | Y                                 | Y                                   | [3]                      |
| SCH1_REV_LTUOK              | 244                                     | N/A                                                     | N/A                               | N/A                                 | [3]                      |
| SCH0_FOR_1X                 | 245                                     | 24                                                      | Y                                 | Y                                   | [3]                      |
| SCH0_FOR_2X                 | 246                                     | 24                                                      | Y                                 | Y                                   | [3]                      |
| SCH0_FOR_4X                 | 247                                     | 24                                                      | Y                                 | Y                                   | [3]                      |
| SCH0_FOR_8X                 | 248                                     | 24                                                      | Y                                 | Y                                   | [3]                      |
| SCH0_FOR_16X                | 249                                     | 24                                                      | Y                                 | Y                                   | [3]                      |
| SCH0_FOR_LTU                | 250                                     | 24                                                      | Y                                 | Y                                   | [3]                      |
| SCH0_FOR_LTUOK              | 251                                     | 24                                                      | Y                                 | Y                                   | [3]                      |
| SCH1_FOR_1X                 | 252                                     | 24                                                      | Y                                 | Y                                   | [3]                      |
| SCH1_FOR_2X                 | 253                                     | 24                                                      | Y                                 | Y                                   | [3]                      |
| SCH1_FOR_4X                 | 254                                     | 24                                                      | Y                                 | Y                                   | [3]                      |
| SCH1_FOR_8X                 | 255                                     | 24                                                      | Y                                 | Y                                   | [3]                      |
| SCH1_FOR_16X                | 256                                     | 24                                                      | Y                                 | Y                                   | [3]                      |
| SCH1_FOR_LTU                | 257                                     | 24                                                      | Y                                 | Y                                   | [3]                      |
| SCH1_FOR_LTUOK              | 258                                     | 24                                                      | Y                                 | Y                                   | [3]                      |
| BCCH_1                      | 259                                     | 24                                                      | Y                                 | Y                                   | [4]                      |
| BCCH_2                      | 260                                     | 24                                                      | Y                                 | Y                                   | [4]                      |
| BCCH_3                      | 261                                     | 24                                                      | Y                                 | Y                                   | [4]                      |
| BCCH_4                      | 262                                     | 24                                                      | Y                                 | Y                                   | [4]                      |
| BCCH_5                      | 263                                     | 16                                                      | Y                                 | Y                                   | 2.4                      |
| FCCCH_1                     | 264                                     | 24                                                      | Y                                 | Y                                   | [4]                      |
| FCCCH_2                     | 265                                     | 24                                                      | Y                                 | Y                                   | [4]                      |
| FCCCH_3                     | 266                                     | 16                                                      | Y                                 | Y                                   | [4]                      |
| FCCCH_4                     | 267                                     | 24                                                      | Y                                 | Y                                   | 2.4                      |

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**Table E-1. Retrievable and Settable Parameters (Part 11 of 19)**

| <b>Parameter Identifier</b> | <b>Value of PARA-METER_ID (decimal)</b> | <b>Length (bits) (PARA-METER_LEN is Length - 1)</b> | <b>Support Required? (Y or N)</b> | <b>Settable Parameter? (Y or N)</b> | <b>Reference Section</b> |
|-----------------------------|-----------------------------------------|-----------------------------------------------------|-----------------------------------|-------------------------------------|--------------------------|
| MUX_FLEX_RFCH_1             | 268                                     | 24                                                  | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RFCH_2             | 269                                     | 24                                                  | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RFCH_3             | 270                                     | 24                                                  | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RFCH_4             | 271                                     | 24                                                  | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RFCH_5             | 272                                     | 24                                                  | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RFCH_6             | 273                                     | 24                                                  | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RFCH_7             | 274                                     | 24                                                  | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RFCH_8             | 275                                     | 24                                                  | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RFCH_9             | 276                                     | 24                                                  | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RFCH_10            | 277                                     | 24                                                  | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RFCH_11            | 278                                     | 24                                                  | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RFCH_12            | 279                                     | 24                                                  | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RFCH_13            | 280                                     | 24                                                  | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RFCH_14            | 281                                     | 24                                                  | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RFCH_15            | 282                                     | 24                                                  | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RFCH_16            | 283                                     | 24                                                  | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RFCH_17            | 284                                     | 24                                                  | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RFCH_18            | 285                                     | 24                                                  | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RFCH_19            | 286                                     | 24                                                  | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RFCH_20            | 287                                     | 24                                                  | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RFCH_21            | 288                                     | 24                                                  | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RFCH_22            | 289                                     | 24                                                  | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RFCH_23            | 290                                     | 24                                                  | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RFCH_24            | 291                                     | 24                                                  | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RFCH_25            | 292                                     | 24                                                  | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RFCH_26            | 293                                     | 24                                                  | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RFCH_27            | 294                                     | 24                                                  | N                                 | Y                                   | [3]                      |

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**Table E-1. Retrievable and Settable Parameters (Part 12 of 19)**

| <b>Parameter Identifier</b> | <b>Value of PARA-METER_ID (decimal)</b> | <b>Length (bits)<br/>(PARA-METER_LEN is Length - 1)</b> | <b>Support Required? (Y or N)</b> | <b>Settable Parameter? (Y or N)</b> | <b>Reference Section</b> |
|-----------------------------|-----------------------------------------|---------------------------------------------------------|-----------------------------------|-------------------------------------|--------------------------|
| MUX_FLEX_RFCH_28            | 295                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RFCH_29            | 296                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RFCH_30            | 297                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RFCH_31            | 298                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RFCH_32            | 299                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RDCCH_1            | 300                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RDCCH_2            | 301                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RDCCH_3            | 302                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RDCCH_4            | 303                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RDCCH_5            | 304                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RDCCH_6            | 305                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RDCCH_7            | 306                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RDCCH_8            | 307                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RDCCH_9            | 308                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RDCCH_10           | 309                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RDCCH_11           | 310                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RDCCH_12           | 311                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RDCCH_13           | 312                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RDCCH_14           | 313                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RDCCH_15           | 314                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RDCCH_16           | 315                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RDCCH_17           | 316                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RDCCH_18           | 317                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RDCCH_19           | 318                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RDCCH_20           | 319                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RDCCH_21           | 320                                     | 24                                                      | N                                 | Y                                   | [3]                      |

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**Table E-1. Retrievable and Settable Parameters (Part 13 of 19)**

| Parameter Identifier | Value of PARA-METER_ID (decimal) | Length (bits) (PARA-METER_LEN is Length - 1) | Support Required? (Y or N) | Settable Parameter? (Y or N) | Reference Section |
|----------------------|----------------------------------|----------------------------------------------|----------------------------|------------------------------|-------------------|
| MUX_FLEX_RDCCH_22    | 321                              | 24                                           | N                          | Y                            | [3]               |
| MUX_FLEX_RDCCH_23    | 322                              | 24                                           | N                          | Y                            | [3]               |
| MUX_FLEX_RDCCH_24    | 323                              | 24                                           | N                          | Y                            | [3]               |
| MUX_FLEX_RDCCH_25    | 324                              | 24                                           | N                          | Y                            | [3]               |
| MUX_FLEX_RDCCH_26    | 325                              | 24                                           | N                          | Y                            | [3]               |
| MUX_FLEX_RDCCH_27    | 326                              | 24                                           | N                          | Y                            | [3]               |
| MUX_FLEX_RDCCH_28    | 327                              | 24                                           | N                          | Y                            | [3]               |
| MUX_FLEX_RDCCH_29    | 328                              | 24                                           | N                          | Y                            | [3]               |
| MUX_FLEX_RDCCH_30    | 329                              | 24                                           | N                          | Y                            | [3]               |
| MUX_FLEX_RDCCH_31    | 330                              | 24                                           | N                          | Y                            | [3]               |
| MUX_FLEX_RDCCH_32    | 331                              | 24                                           | N                          | Y                            | [3]               |
| RSCH0_1              | 332                              | 24                                           | N                          | Y                            | [3]               |
| RSCH0_2              | 333                              | 24                                           | N                          | Y                            | [3]               |
| RSCH0_3              | 334                              | 24                                           | N                          | Y                            | [3]               |
| RSCH0_4              | 335                              | 24                                           | N                          | Y                            | [3]               |
| RSCH0_5              | 336                              | 24                                           | N                          | Y                            | [3]               |
| RSCH0_6              | 337                              | 24                                           | N                          | Y                            | [3]               |
| RSCH0_7              | 338                              | 24                                           | N                          | Y                            | [3]               |
| RSCH0_8              | 339                              | 24                                           | N                          | Y                            | [3]               |
| RSCH0_9              | 340                              | 24                                           | N                          | Y                            | [3]               |
| RSCH0_10             | 341                              | 24                                           | N                          | Y                            | [3]               |
| RSCH0_11             | 342                              | 24                                           | N                          | Y                            | [3]               |
| RSCH0_12             | 343                              | 24                                           | N                          | Y                            | [3]               |
| RSCH0_13             | 344                              | 24                                           | N                          | Y                            | [3]               |
| RSCH0_14             | 345                              | 24                                           | N                          | Y                            | [3]               |
| RSCH0_15             | 346                              | 24                                           | N                          | Y                            | [3]               |
| RSCH0_16             | 347                              | 24                                           | N                          | Y                            | [3]               |
| RSCH0_LTU            | 348                              | 24                                           | N                          | Y                            | [3]               |

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**Table E-1. Retrievable and Settable Parameters (Part 14 of 19)**

| <b>Parameter Identifier</b> | <b>Value of PARA-METER_ID (decimal)</b> | <b>Length (bits)<br/>(PARA-METER_LEN is Length - 1)</b> | <b>Support Required? (Y or N)</b> | <b>Settable Parameter? (Y or N)</b> | <b>Reference Section</b> |
|-----------------------------|-----------------------------------------|---------------------------------------------------------|-----------------------------------|-------------------------------------|--------------------------|
| RSCH1_1                     | 349                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| RSCH1_2                     | 350                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| RSCH1_3                     | 351                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| RSCH1_4                     | 352                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| RSCH1_5                     | 353                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| RSCH1_6                     | 354                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| RSCH1_7                     | 355                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| RSCH1_8                     | 356                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| RSCH1_9                     | 357                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| RSCH1_10                    | 358                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| RSCH1_11                    | 359                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| RSCH1_12                    | 360                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| RSCH1_13                    | 361                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| RSCH1_14                    | 362                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| RSCH1_15                    | 363                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| RSCH1_16                    | 364                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| RSCH1_LTU                   | 365                                     | 24                                                      | N                                 | Y                                   | [3]                      |

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**Table E-1. Retrievable and Settable Parameters (Part 15 of 19)**

| Parameter Identifier | Value of PARA-METER_ID (decimal) | Length (bits) (PARA-METER_LEN is Length - 1) | Support Required? (Y or N) | Settable Parameter? (Y or N) | Reference Section |
|----------------------|----------------------------------|----------------------------------------------|----------------------------|------------------------------|-------------------|
| MUX_FLEX_FFCH_1      | 366                              | 24                                           | N                          | Y                            | [3]               |
| MUX_FLEX_FFCH_2      | 367                              | 24                                           | N                          | Y                            | [3]               |
| MUX_FLEX_FFCH_3      | 368                              | 24                                           | N                          | Y                            | [3]               |
| MUX_FLEX_FFCH_4      | 369                              | 24                                           | N                          | Y                            | [3]               |
| MUX_FLEX_FFCH_5      | 370                              | 24                                           | N                          | Y                            | [3]               |
| MUX_FLEX_FFCH_6      | 371                              | 24                                           | N                          | Y                            | [3]               |
| MUX_FLEX_FFCH_7      | 372                              | 24                                           | N                          | Y                            | [3]               |
| MUX_FLEX_FFCH_8      | 373                              | 24                                           | N                          | Y                            | [3]               |
| MUX_FLEX_FFCH_9      | 374                              | 24                                           | N                          | Y                            | [3]               |
| MUX_FLEX_FFCH_10     | 375                              | 24                                           | N                          | Y                            | [3]               |
| MUX_FLEX_FFCH_11     | 376                              | 24                                           | N                          | Y                            | [3]               |
| MUX_FLEX_FFCH_12     | 377                              | 24                                           | N                          | Y                            | [3]               |
| MUX_FLEX_FFCH_13     | 378                              | 24                                           | N                          | Y                            | [3]               |
| MUX_FLEX_FFCH_14     | 379                              | 24                                           | N                          | Y                            | [3]               |
| MUX_FLEX_FFCH_15     | 380                              | 24                                           | N                          | Y                            | [3]               |
| MUX_FLEX_FFCH_16     | 381                              | 24                                           | N                          | Y                            | [3]               |
| MUX_FLEX_FFCH_17     | 382                              | 24                                           | N                          | Y                            | [3]               |
| MUX_FLEX_FFCH_18     | 383                              | 24                                           | N                          | Y                            | [3]               |
| MUX_FLEX_FFCH_19     | 384                              | 24                                           | N                          | Y                            | [3]               |
| MUX_FLEX_FFCH_20     | 385                              | 24                                           | N                          | Y                            | [3]               |
| MUX_FLEX_FFCH_21     | 386                              | 24                                           | N                          | Y                            | [3]               |
| MUX_FLEX_FFCH_22     | 387                              | 24                                           | N                          | Y                            | [3]               |
| MUX_FLEX_FFCH_23     | 388                              | 24                                           | N                          | Y                            | [3]               |
| MUX_FLEX_FFCH_24     | 389                              | 24                                           | N                          | Y                            | [3]               |
| MUX_FLEX_FFCH_25     | 390                              | 24                                           | N                          | Y                            | [3]               |
| MUX_FLEX_FFCH_26     | 391                              | 24                                           | N                          | Y                            | [3]               |

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**Table E-1. Retrievable and Settable Parameters (Part 16 of 19)**

| <b>Parameter Identifier</b> | <b>Value of PARA-METER_ID (decimal)</b> | <b>Length (bits)<br/>(PARA-METER_LEN is Length - 1)</b> | <b>Support Required? (Y or N)</b> | <b>Settable Parameter? (Y or N)</b> | <b>Reference Section</b> |
|-----------------------------|-----------------------------------------|---------------------------------------------------------|-----------------------------------|-------------------------------------|--------------------------|
| MUX_FLEX_FFCH_27            | 392                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_FFCH_28            | 393                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_FFCH_29            | 394                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_FFCH_30            | 395                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_FFCH_31            | 396                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_FFCH_32            | 397                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_FDCCH_1            | 398                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_FDCCH_2            | 399                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_FDCCH_3            | 400                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_FDCCH_4            | 401                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_FDCCH_5            | 402                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_FDCCH_6            | 403                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_FDCCH_7            | 404                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_FDCCH_8            | 405                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_FDCCH_9            | 406                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_FDCCH_10           | 407                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_FDCCH_11           | 408                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_FDCCH_12           | 409                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_FDCCH_13           | 410                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_FDCCH_14           | 411                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_FDCCH_15           | 412                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_FDCCH_16           | 413                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_FDCCH_17           | 414                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_FDCCH_18           | 415                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_FDCCH_19           | 416                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_FDCCH_20           | 417                                     | 24                                                      | N                                 | Y                                   | [3]                      |

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**Table E-1. Retrievable and Settable Parameters (Part 17 of 19)**

| Parameter Identifier | Value of PARA-METER_ID (decimal) | Length (bits) (PARA-METER_LEN is Length - 1) | Support Required? (Y or N) | Settable Parameter? (Y or N) | Reference Section |
|----------------------|----------------------------------|----------------------------------------------|----------------------------|------------------------------|-------------------|
| MUX_FLEX_FDCCH_21    | 418                              | 24                                           | N                          | Y                            | [3]               |
| MUX_FLEX_FDCCH_22    | 419                              | 24                                           | N                          | Y                            | [3]               |
| MUX_FLEX_FDCCH_23    | 420                              | 24                                           | N                          | Y                            | [3]               |
| MUX_FLEX_FDCCH_24    | 421                              | 24                                           | N                          | Y                            | [3]               |
| MUX_FLEX_FDCCH_25    | 422                              | 24                                           | N                          | Y                            | [3]               |
| MUX_FLEX_FDCCH_26    | 423                              | 24                                           | N                          | Y                            | [3]               |
| MUX_FLEX_FDCCH_27    | 424                              | 24                                           | N                          | Y                            | [3]               |
| MUX_FLEX_FDCCH_28    | 425                              | 24                                           | N                          | Y                            | [3]               |
| MUX_FLEX_FDCCH_29    | 426                              | 24                                           | N                          | Y                            | [3]               |
| MUX_FLEX_FDCCH_30    | 427                              | 24                                           | N                          | Y                            | [3]               |
| MUX_FLEX_FDCCH_31    | 428                              | 24                                           | N                          | Y                            | [3]               |
| MUX_FLEX_FDCCH_32    | 429                              | 24                                           | N                          | Y                            | [3]               |
| FSCH0_1              | 430                              | 24                                           | N                          | Y                            | [3]               |
| FSCH0_2              | 431                              | 24                                           | N                          | Y                            | [3]               |
| FSCH0_3              | 432                              | 24                                           | N                          | Y                            | [3]               |
| FSCH0_4              | 433                              | 24                                           | N                          | Y                            | [3]               |
| FSCH0_5              | 434                              | 24                                           | N                          | Y                            | [3]               |
| FSCH0_6              | 435                              | 24                                           | N                          | Y                            | [3]               |
| FSCH0_7              | 436                              | 24                                           | N                          | Y                            | [3]               |
| FSCH0_8              | 437                              | 24                                           | N                          | Y                            | [3]               |
| FSCH0_9              | 438                              | 24                                           | N                          | Y                            | [3]               |
| FSCH0_10             | 439                              | 24                                           | N                          | Y                            | [3]               |
| FSCH0_11             | 440                              | 24                                           | N                          | Y                            | [3]               |
| FSCH0_12             | 441                              | 24                                           | N                          | Y                            | [3]               |
| FSCH0_13             | 442                              | 24                                           | N                          | Y                            | [3]               |
| FSCH0_14             | 443                              | 24                                           | N                          | Y                            | [3]               |

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**Table E-1. Retrievable and Settable Parameters (Part 18 of 19)**

| <b>Parameter Identifier</b> | <b>Value of PARA-METER_ID (decimal)</b> | <b>Length (bits)<br/>(PARA-METER_LEN is Length - 1)</b> | <b>Support Required? (Y or N)</b> | <b>Settable Parameter? (Y or N)</b> | <b>Reference Section</b> |
|-----------------------------|-----------------------------------------|---------------------------------------------------------|-----------------------------------|-------------------------------------|--------------------------|
| FSCH0_15                    | 444                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| FSCH0_16                    | 445                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| FSCH0_LTU                   | 446                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| FSCH0_LTUOK                 | 447                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| FSCH1_1                     | 448                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| FSCH1_2                     | 449                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| FSCH1_3                     | 450                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| FSCH1_4                     | 451                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| FSCH1_5                     | 452                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| FSCH1_6                     | 453                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| FSCH1_7                     | 454                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| FSCH1_8                     | 455                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| FSCH1_9                     | 456                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| FSCH1_10                    | 457                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| FSCH1_11                    | 458                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| FSCH1_12                    | 459                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| FSCH1_13                    | 460                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| FSCH1_14                    | 461                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| FSCH1_15                    | 462                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| FSCH1_16                    | 463                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| FSCH1_LTU                   | 464                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| FSCH1_LTUOK                 | 465                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_RFCH_5_ms          | 466                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX_FFCH_5_ms          | 467                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX-_RDCCH_5_ms        | 468                                     | 24                                                      | N                                 | Y                                   | [3]                      |
| MUX_FLEX-_FDCCH_5_ms        | 469                                     | 24                                                      | N                                 | Y                                   | [3]                      |

2



**Table E-1. Retrievable and Settable Parameters (Part 19 of 19)**

| <b>Parameter Identifier</b> | <b>Value of PARA-METER_ID (decimal)</b> | <b>Length (bits)<br/>(PARA-METER_LEN is Length - 1)</b> | <b>Support Required?<br/>(Y or N)</b> | <b>Settable Parameter?<br/>(Y or N)</b> | <b>Reference Section</b> |
|-----------------------------|-----------------------------------------|---------------------------------------------------------|---------------------------------------|-----------------------------------------|--------------------------|
| EACH_BA_1                   | 470                                     | 16                                                      | Y                                     | Y                                       | [4]                      |
| EACH_BA_2                   | 471                                     | 16                                                      | Y                                     | Y                                       | [4]                      |
| EACH_BA_3                   | 472                                     | 16                                                      | Y                                     | Y                                       | [4]                      |
| EACH_BA_4                   | 473                                     | 16                                                      | Y                                     | Y                                       | [4]                      |
| EACH_BA_5                   | 474                                     | 16                                                      | Y                                     | Y                                       | [4]                      |
| EACH_BA_6                   | 475                                     | 16                                                      | Y                                     | Y                                       | [4]                      |
| EACH_BA_7                   | 476                                     | 16                                                      | Y                                     | Y                                       | [4]                      |
| EACH_BA_8                   | 477                                     | 16                                                      | Y                                     | Y                                       | [4]                      |
| EACH_RA_3                   | 478                                     | 16                                                      | Y                                     | Y                                       | [4]                      |
| EACH_RA_4                   | 479                                     | 16                                                      | Y                                     | Y                                       | [4]                      |
| EACH_RA_5                   | 480                                     | 16                                                      | Y                                     | Y                                       | [4]                      |
| EACH_RA_6                   | 481                                     | 16                                                      | Y                                     | Y                                       | [4]                      |
| EACH_RA_7                   | 482                                     | 16                                                      | Y                                     | Y                                       | [4]                      |
| EACH_RA_8                   | 483                                     | 16                                                      | Y                                     | Y                                       | [4]                      |
| RCCCH_1                     | 484                                     | 16                                                      | Y                                     | Y                                       | [4]                      |
| RCCCH_2                     | 485                                     | 16                                                      | Y                                     | Y                                       | [4]                      |
| RCCCH_3                     | 486                                     | 16                                                      | Y                                     | Y                                       | [4]                      |
| RCCCH_4                     | 487                                     | 16                                                      | Y                                     | Y                                       | [4]                      |
| RCCCH_5                     | 488                                     | 16                                                      | Y                                     | Y                                       | [4]                      |
| RCCCH_6                     | 489                                     | 16                                                      | Y                                     | Y                                       | [4]                      |
| RCCCH_7                     | 490                                     | 16                                                      | Y                                     | Y                                       | [4]                      |
| RCCCH_8                     | 491                                     | 16                                                      | Y                                     | Y                                       | [4]                      |
| RCCCH_9                     | 492                                     | 16                                                      | Y                                     | Y                                       | [4]                      |
| BCCH_6                      | 493                                     | 24                                                      | Y                                     | Y                                       | [3]                      |
| BCCH_7                      | 494                                     | 24                                                      | Y                                     | Y                                       | [3]                      |
| BCCH_8                      | 495                                     | 24                                                      | Y                                     | Y                                       | [3]                      |
| BCCH_9                      | 496                                     | 24                                                      | Y                                     | Y                                       | [3]                      |
| CACH_1                      | 497                                     | 24                                                      | Y                                     | Y                                       | [3]                      |
| CACH_2                      | 498                                     | 24                                                      | Y                                     | Y                                       | [3]                      |
| FCCCH_5                     | 499                                     | 24                                                      | Y                                     | Y                                       | [3]                      |

**Table E-1. Retrievable and Settable Parameters (Part 19 of 19)**

| <b>Parameter Identifier</b> | <b>Value of PARA-METER_ID (decimal)</b> | <b>Length (bits)<br/>(PARA-METER_LEN is Length - 1)</b> | <b>Support Required? (Y or N)</b> | <b>Settable Parameter? (Y or N)</b> | <b>Reference Section</b> |
|-----------------------------|-----------------------------------------|---------------------------------------------------------|-----------------------------------|-------------------------------------|--------------------------|
| FCCCH_6                     | 500                                     | 24                                                      | Y                                 | Y                                   | [3]                      |
| FCCCH_7                     | 501                                     | 24                                                      | Y                                 | Y                                   | [3]                      |
| FCCCH_8                     | 502                                     | 24                                                      | Y                                 | Y                                   | [3]                      |
| FCCCH_9                     | 503                                     | 24                                                      | Y                                 | Y                                   | [3]                      |
| FCCCH_10                    | 504                                     | 24                                                      | Y                                 | Y                                   | [3]                      |
| FCCCH_11                    | 505                                     | 24                                                      | Y                                 | Y                                   | [3]                      |
| <u>SCH0_FOR_32X</u>         | <u>506</u>                              | <u>24</u>                                               | <u>Y</u>                          | <u>Y</u>                            | <u>[3]</u>               |
| <u>SCH1_FOR_32X</u>         | <u>507</u>                              | <u>24</u>                                               | <u>Y</u>                          | <u>Y</u>                            | <u>[3]</u>               |
| <u>SCH0_REV_32X</u>         | <u>508</u>                              | <u>24</u>                                               | <u>Y</u>                          | <u>Y</u>                            | <u>[3]</u>               |
| <u>SCH1_REV_32X</u>         | <u>509</u>                              | <u>24</u>                                               | <u>Y</u>                          | <u>Y</u>                            | <u>[3]</u>               |

1   **ANNEX F MOBILE STATION DATABASE**

2   **F.1 Introduction**

3   This is an informative annex which lists the numeric indicators that are described by this  
4   document and stored in the mobile station's permanent or semi-permanent memory. Some  
5   of these indicators are required; other indicators are optional and are so noted.

6   The indicators are organized in this annex according to two categories:

- 7       • Mobile station indicators   These indicators are global to the mobile station and  
8                                          independent of the mobile station's NAMs.
- 9       • NAM indicators              These indicators specify parameters associated with the  
10                                         mobile station's NAM.

11   The description of each indicator below includes the indicator's name, the number of bits it  
12   contains, and the section in this document where it is defined. Permanent indicators are  
13   denoted by the "p" subscript; semi-permanent indicators are denoted by the "s-p"  
14   subscript.

1   **F.2 Mobile Station Indicators**

2   Mobile station indicators are organized into permanent mobile station indicators and semi-  
3   permanent mobile station indicators.

4   F.2.1 Permanent Mobile Station Indicators

5   Permanent mobile station indicators specify physical station configuration and attributes,  
6   independent of NAM. The indicators are listed in Table F.2.1-1.

7

8   **Table F.2.1-1. Permanent Mobile Station Indicators**

| <b>Indicator</b>               | <b>Number of Bits</b> | <b>Where Defined</b> | <b>Notes</b>                                                                                           |
|--------------------------------|-----------------------|----------------------|--------------------------------------------------------------------------------------------------------|
| ESN <sub>p</sub>               | 32                    | 2.3.2                | See 2.3.2 for special ESN storage and protection requirements.<br>Includes MOB_MFG_CODE <sub>p</sub> . |
| SCM <sub>p</sub>               | 8                     | 2.3.3                |                                                                                                        |
| SLOT_CYCLE_INDEX <sub>p</sub>  | 3                     | 2.3.11               |                                                                                                        |
| MOB_FIRM_REV <sub>p</sub>      | 16                    | 2.3.14               |                                                                                                        |
| MOB_MODEL <sub>p</sub>         | 8                     | 2.3.14               |                                                                                                        |
| For each band class supported: |                       |                      |                                                                                                        |
| MOB_P_REV <sub>p</sub>         | 8                     | 2.3.14               |                                                                                                        |

9

1 F.2.2 Semi-permanent Mobile Station Indicators

2 Semi-permanent mobile station indicators are retained when the mobile station power is  
 3 turned off. These indicators are associated with mobile station registration and lock. They  
 4 are independent of the NAM in use. CDMA indicators are listed in Table F.2.2-1.

5

6 **Table F.2.2-1. CDMA Semi-permanent Mobile Station Indicators**

| <b>Indicator</b>             | <b>Number of Bits</b> | <b>Where Defined</b> | <b>Notes</b> |
|------------------------------|-----------------------|----------------------|--------------|
| ZONE_LIST <sub>s-p</sub>     |                       | 2.3.4                |              |
| REG_ZONE <sub>s-p</sub>      | 12                    | 2.3.4                |              |
| SID <sub>s-p</sub>           | 15                    | 2.3.4                |              |
| NID <sub>s-p</sub>           | 16                    | 2.3.4                |              |
| SID_NID_LIST <sub>s-p</sub>  |                       | 2.3.4                |              |
| SID <sub>s-p</sub>           | 15                    | 2.3.4                |              |
| NID <sub>s-p</sub>           | 16                    | 2.3.4                |              |
| BASE_LAT_REG <sub>s-p</sub>  | 22                    | 2.3.4                |              |
| BASE_LONG_REG <sub>s-p</sub> | 23                    | 2.3.4                |              |
| REG_DIST_REG <sub>s-p</sub>  | 11                    | 2.3.4                |              |
| LCKRSN_P <sub>s-p</sub>      | 4                     | 2.3.13               |              |
| MAINTRSN <sub>s-p</sub>      | 4                     | 2.3.13               |              |

7

1   **F.3 NAM Indicators**

2   Each mobile station contains one or more NAMs. Table F.3-1 lists the permanent and  
3   semi-permanent values associated with each NAM.

4

5   **Table F.3-1. NAM Indicators (Part 1 of 2)**

| <b>Indicator</b>                        | <b>Number of Bits</b> | <b>Where Defined</b> | <b>Notes</b>                                                              |
|-----------------------------------------|-----------------------|----------------------|---------------------------------------------------------------------------|
| A_KEY                                   | 64                    | 2.3.12.1.5           |                                                                           |
| SSD_A <sub>s-p</sub>                    | 64                    | 2.3.12.1.1           | Shared Secret Data A                                                      |
| SSD_B <sub>s-p</sub>                    | 64                    | 2.3.12.1.1           | Shared Secret Data B                                                      |
| COUNT <sub>s-p</sub>                    | 6                     | 2.3.12.1.3           | Call History Parameter                                                    |
| IMSI_M_CLASS <sub>p</sub>               | 1                     | 2.3.1                |                                                                           |
| IMSI_T_CLASS <sub>p</sub>               | 1                     | 2.3.1                |                                                                           |
| IMSI_M_S <sub>p</sub>                   | 34                    | 2.3.1.1              | Includes IMSI_M_S1 <sub>p</sub> and IMSI_M_S2 <sub>p</sub> .              |
| IMSI_T_S <sub>p</sub>                   | 34                    | 2.3.1.1              | Includes IMSI_T_S1 <sub>p</sub> and IMSI_T_S2 <sub>p</sub> .              |
| IMSI_M_ADDR_NUM <sub>p</sub>            | 3                     | 2.3.1                | Applies to IMSI_M.                                                        |
| IMSI_T_ADDR_NUM <sub>p</sub>            | 3                     | 2.3.1                | Applies to IMSI_T.                                                        |
| IMSI_M_11_12 <sub>p</sub>               | 7                     | 2.3.1.2              |                                                                           |
| IMSI_T_11_12 <sub>p</sub>               | 7                     | 2.3.1.1              |                                                                           |
| MCC_M <sub>p</sub>                      | 10                    | 2.3.1.1              |                                                                           |
| MCC_T <sub>p</sub>                      | 10                    | 2.3.1.1              |                                                                           |
| MDN <sub>p</sub>                        | See Notes             | 2.3.1.4              | An MDN consists of up to 15 digits based on manufacturer specific coding. |
| ASSIGNING_TMSI_ZO_NE_LEN <sub>s-p</sub> | 4                     | 23.15.2              |                                                                           |
| ASSIGNING_TMSI_ZONE <sub>s-p</sub>      | 64                    | 2.3.15.2             |                                                                           |
| TMSI_CODE <sub>s-p</sub>                | 32                    | 2.3.15.2             |                                                                           |
| TMSI_EXP_TIME <sub>s-p</sub>            | 24                    | 2.3.15.2             |                                                                           |
| HOME_SID <sub>p</sub>                   | 15                    | 2.3.8                |                                                                           |

1

**Table F.3-1. NAM Indicators (Part 2 of 2)**

| <b>Indicator</b>              | <b>Number<br/>of Bits</b> | <b>Where<br/>Defined</b> | <b>Notes</b> |
|-------------------------------|---------------------------|--------------------------|--------------|
| SID <sub>p</sub>              | 15                        | 2.3.8                    |              |
| NID <sub>p</sub>              | 16                        | 2.3.8                    |              |
| MOB_TERM_HOME <sub>p</sub>    | 1                         | 2.3.8                    |              |
| MOB_TERM_FOR_SID <sub>p</sub> | 1                         | 2.3.8                    |              |
| MOB_TERM_FOR_NID <sub>p</sub> | 1                         | 2.3.8                    |              |

2



**ANNEX G CDMA EXTENDED ENCRYPTION CALL FLOW EXAMPLES**

This is an informative annex, which contains examples of extended encryption call flow.  
The diagrams follow these conventions:

- All messages are received without error
- Acknowledgments are not shown

For all the call flow diagrams, the following conventions hold:

- The following message acronyms are defined:

RGM: Registration Message

ORM: Origination Message

CAM: Channel Assignment Message

ECAM: Extended Channel Assignment Message

SMCM: Security Mode Command Message

- The following short forms are defined:

enc.k1: encrypt the message with key k1

csch enc req: C SIG ENCRYPT REQ

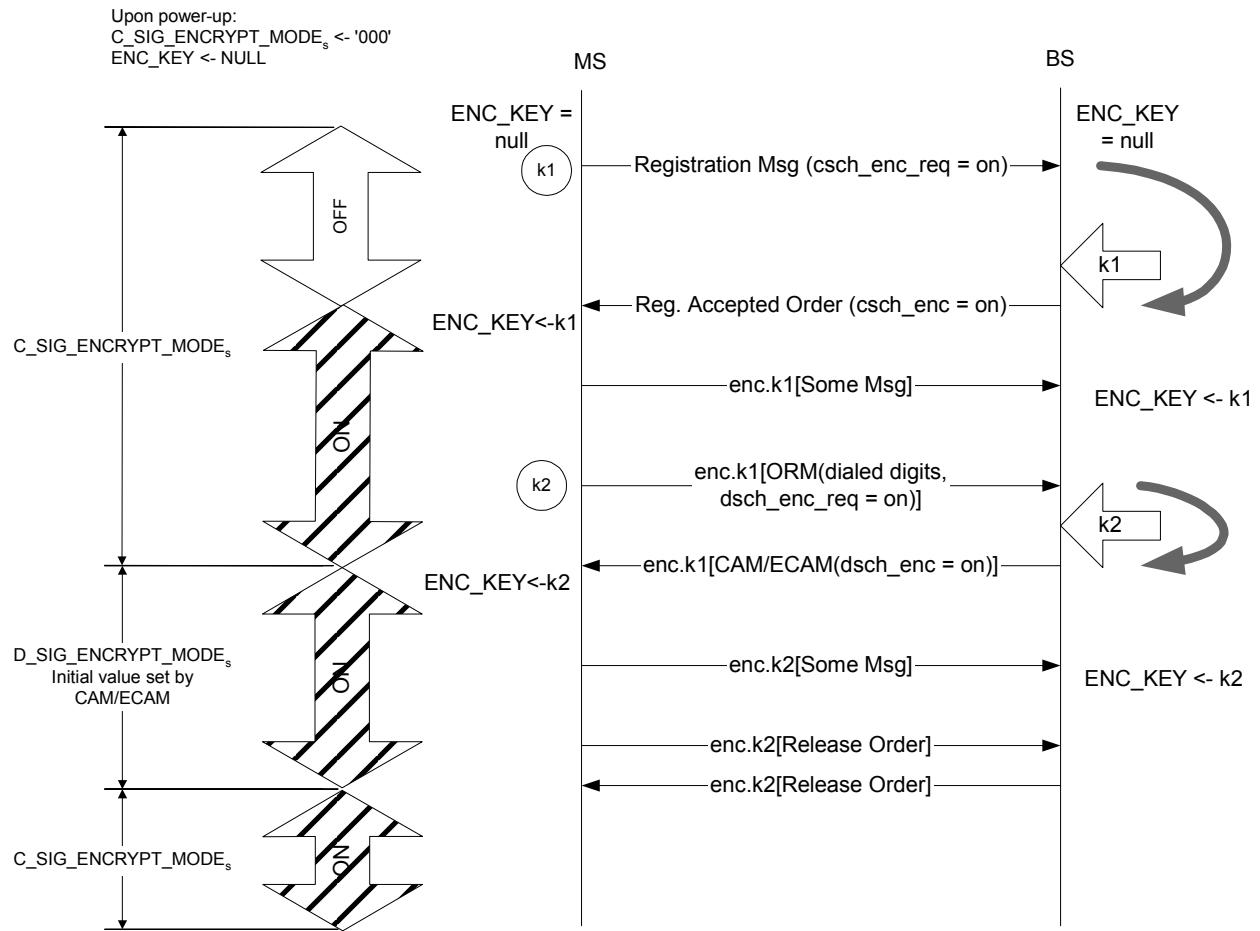
dsch enc req: D SIG ENCRYPT REQS

csch enc: C SIG ENCRYPT MODE

dsch enc: D SIG ENCRYPT MODE

A <- B: assign value B to variable A

20

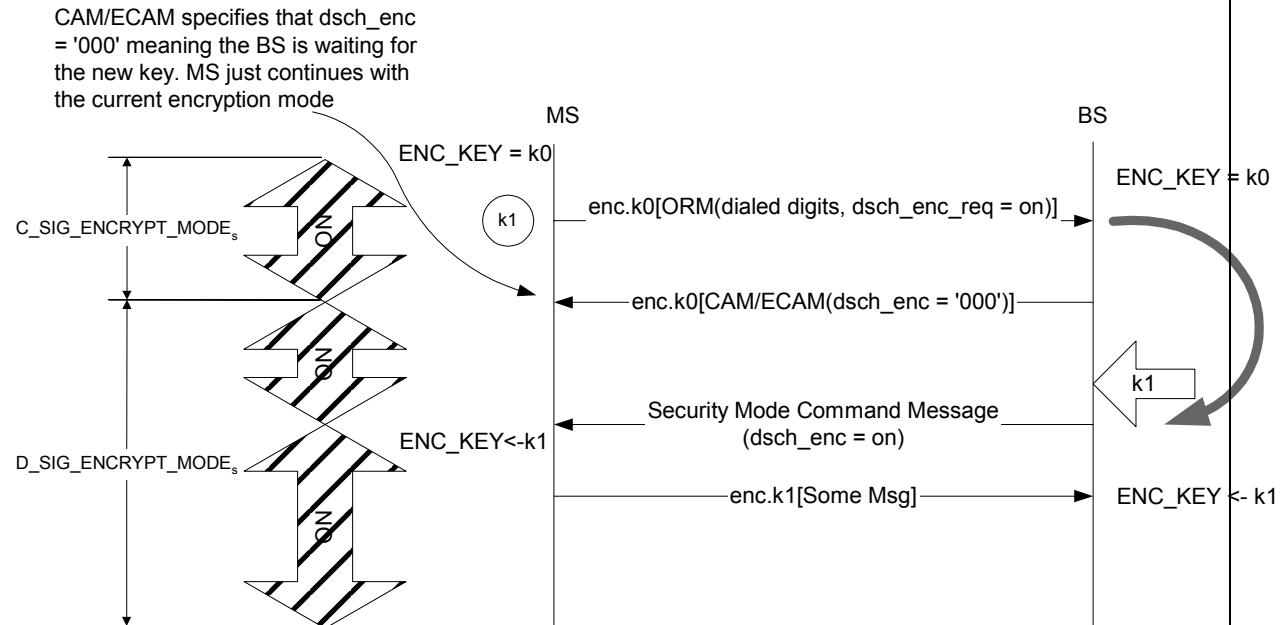


= successful key exchange

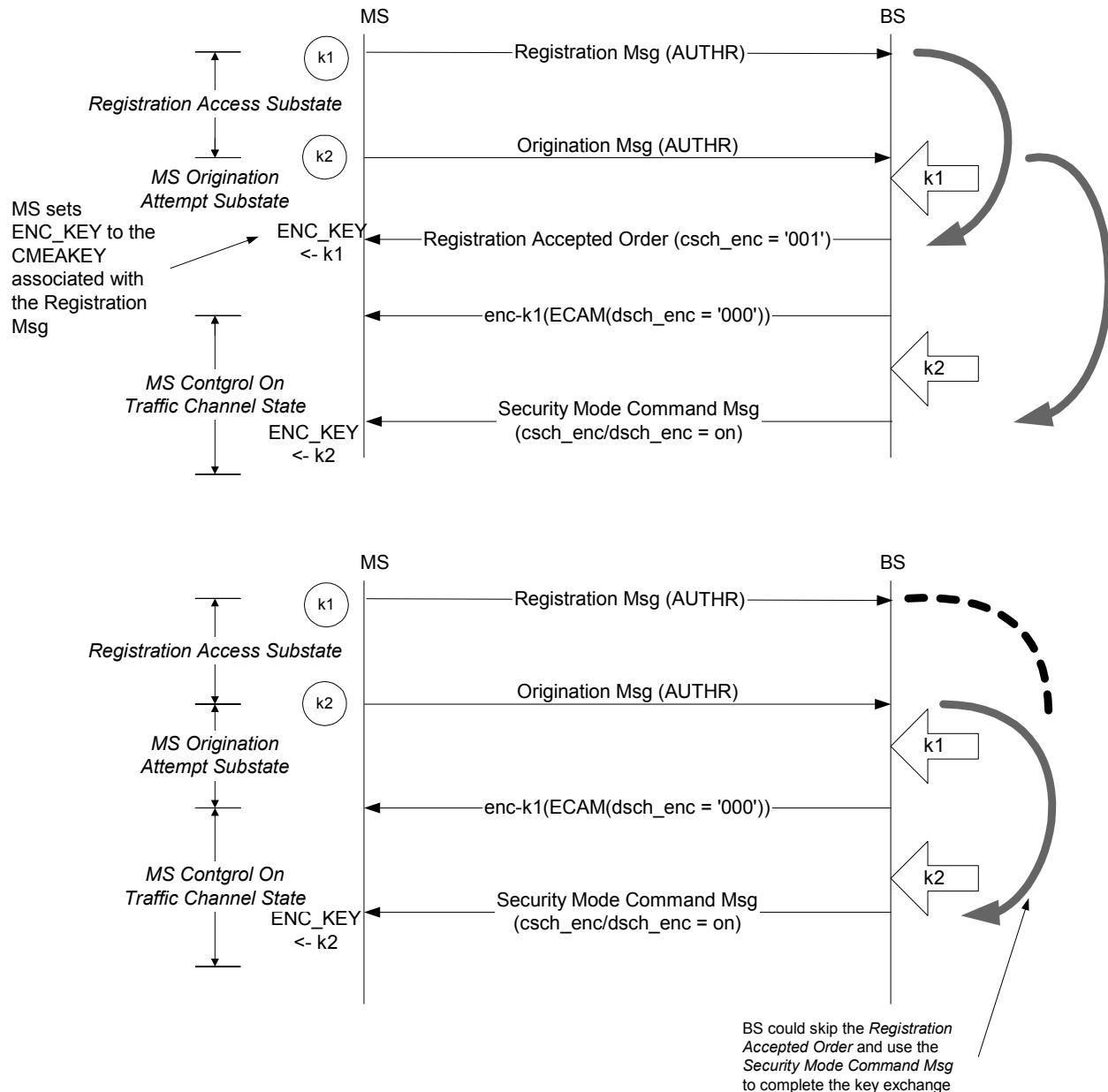
= unsuccessful key exchange

k = CMEKEY generated in MS

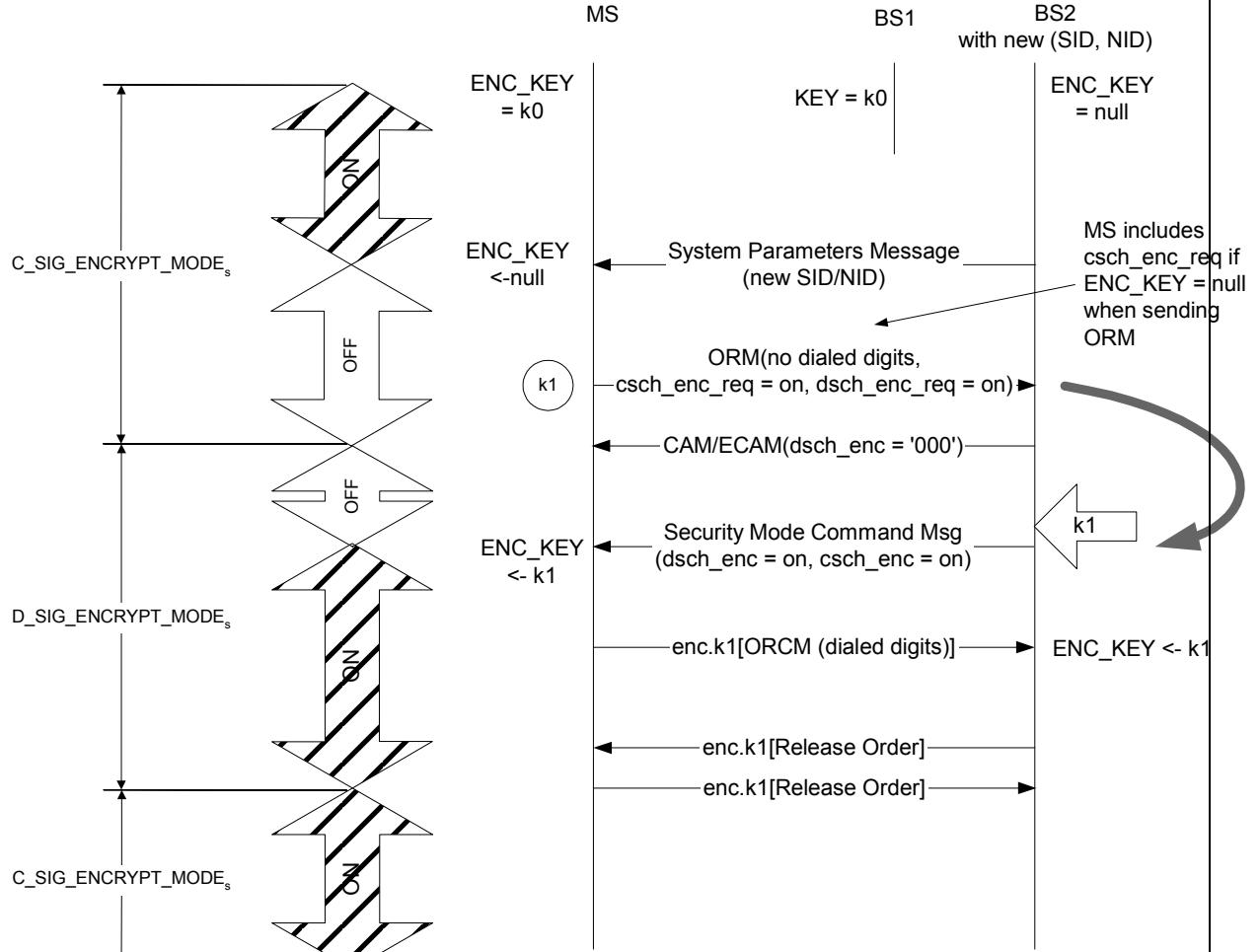
CMEAKEY obtained  
from VLR or AuC



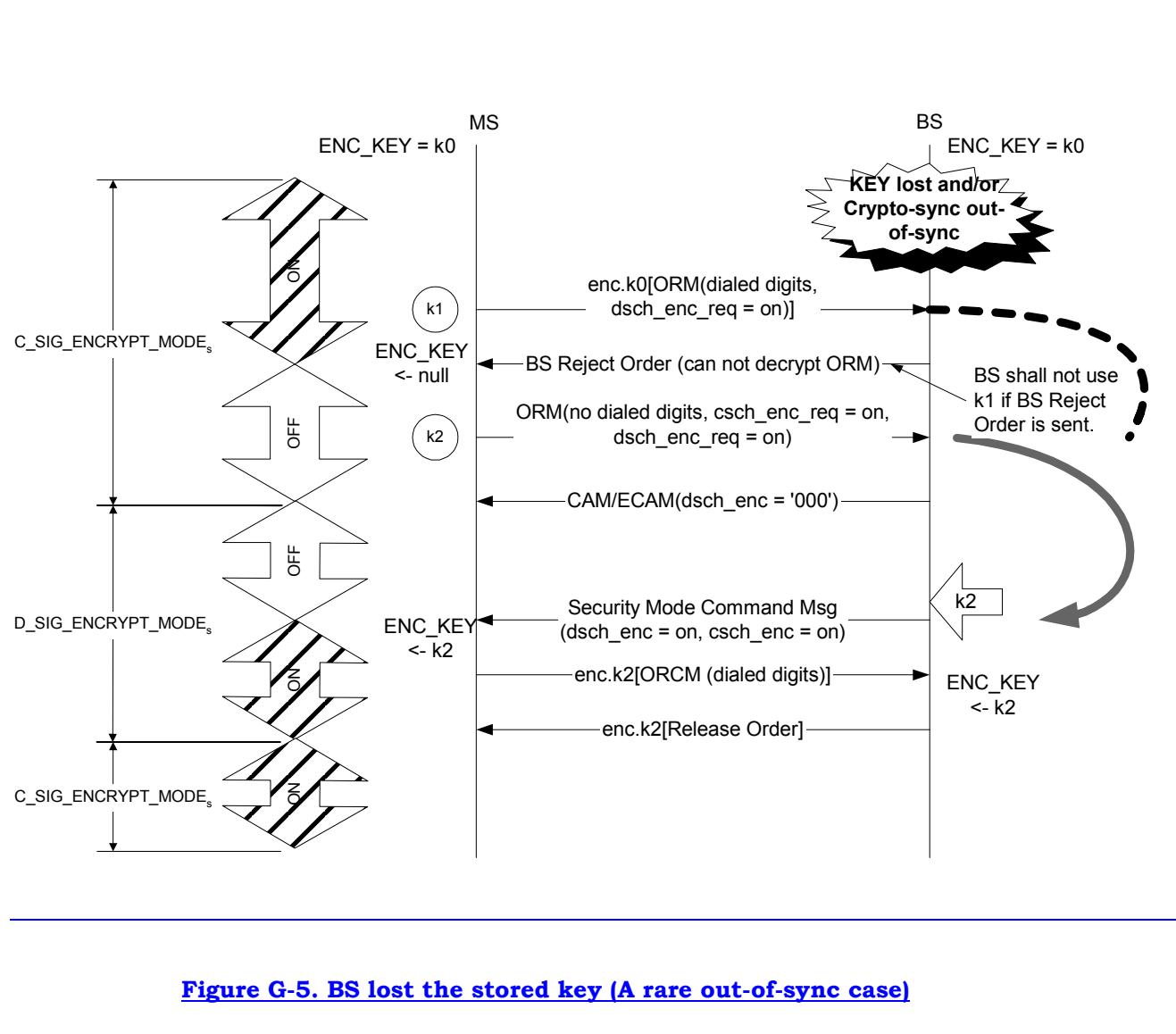
**Figure G-2. Quick channel assignment (BS does not wait for the new key before sending CAM/ECAM)**

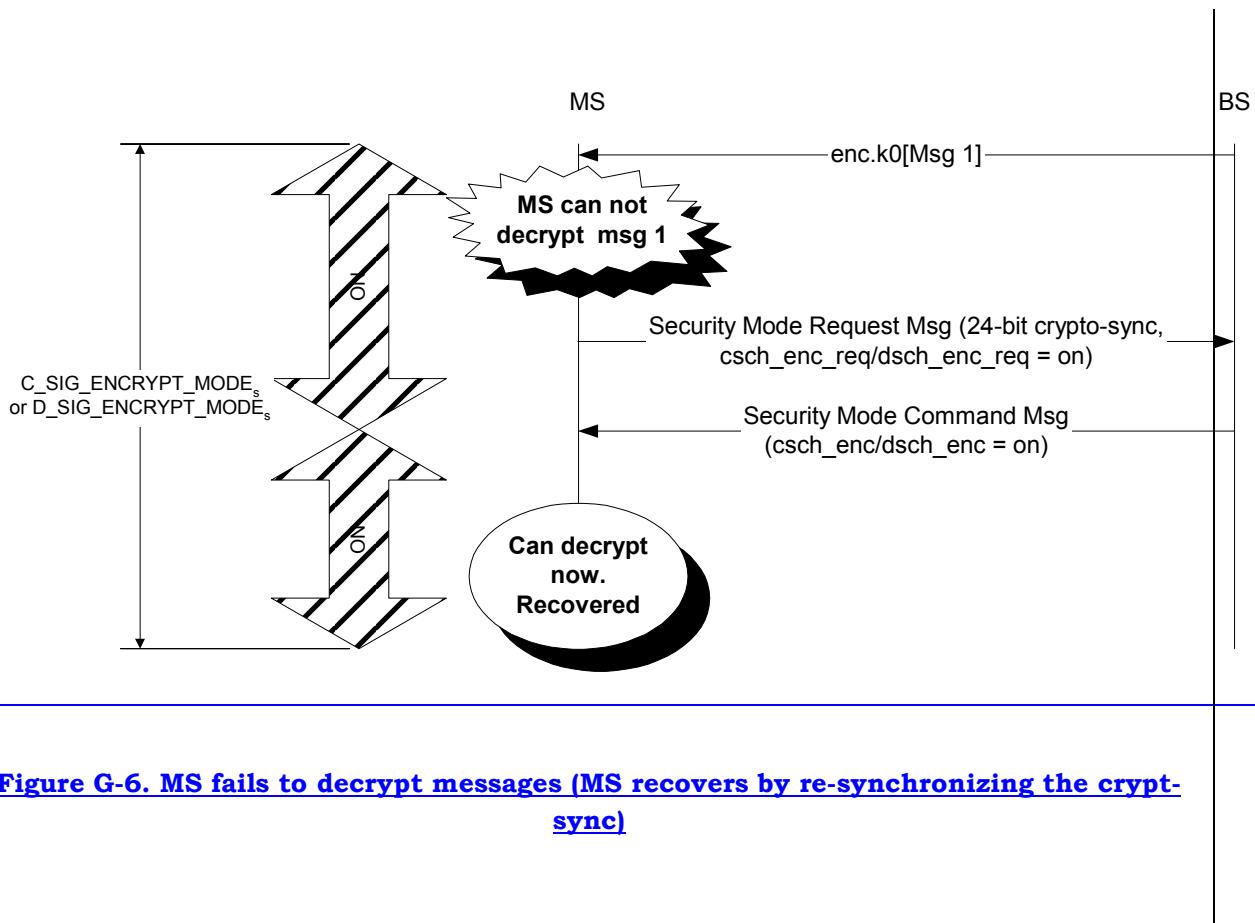


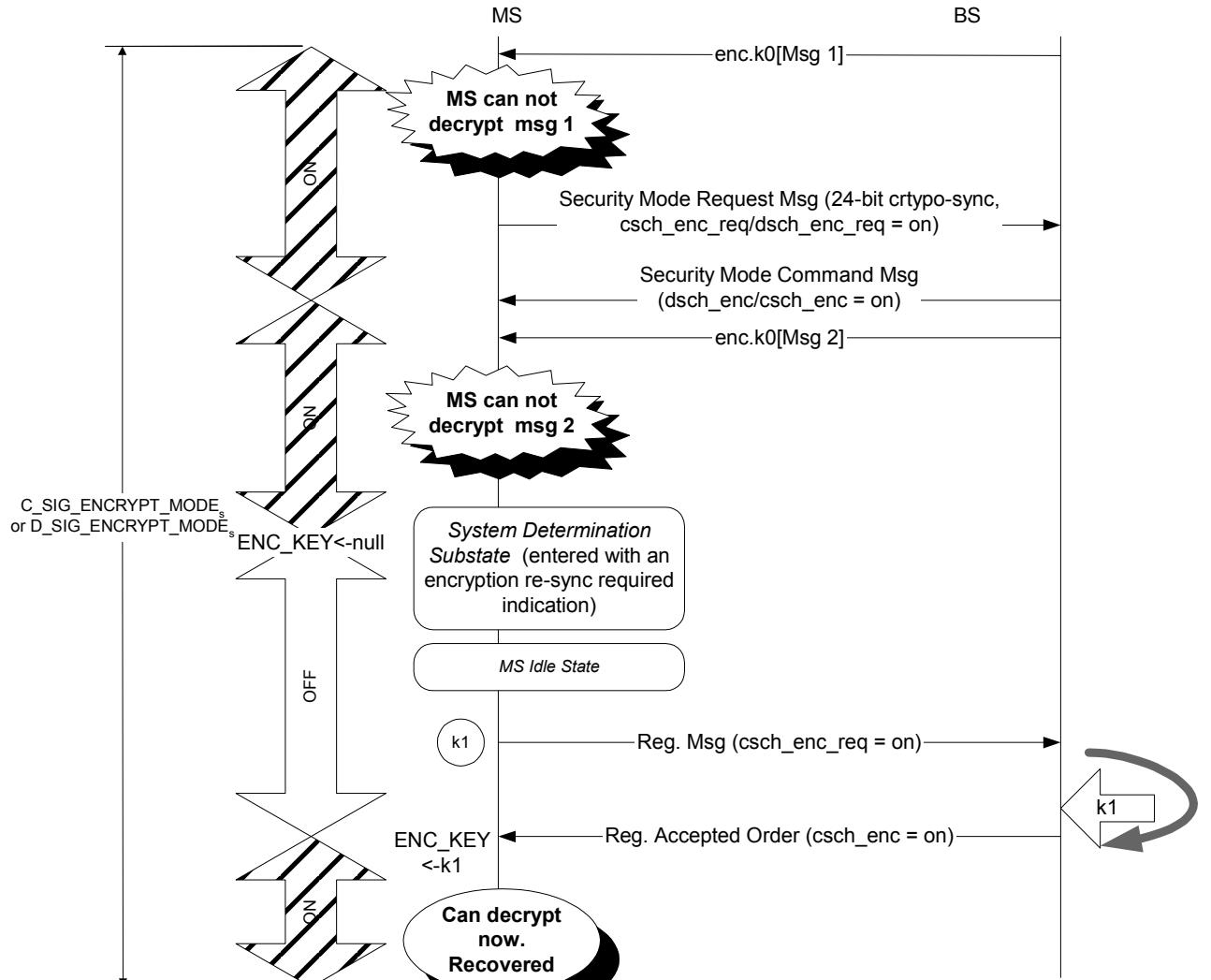
**Figure G-3. MS Initiates call origination during the Registration Access Substate**



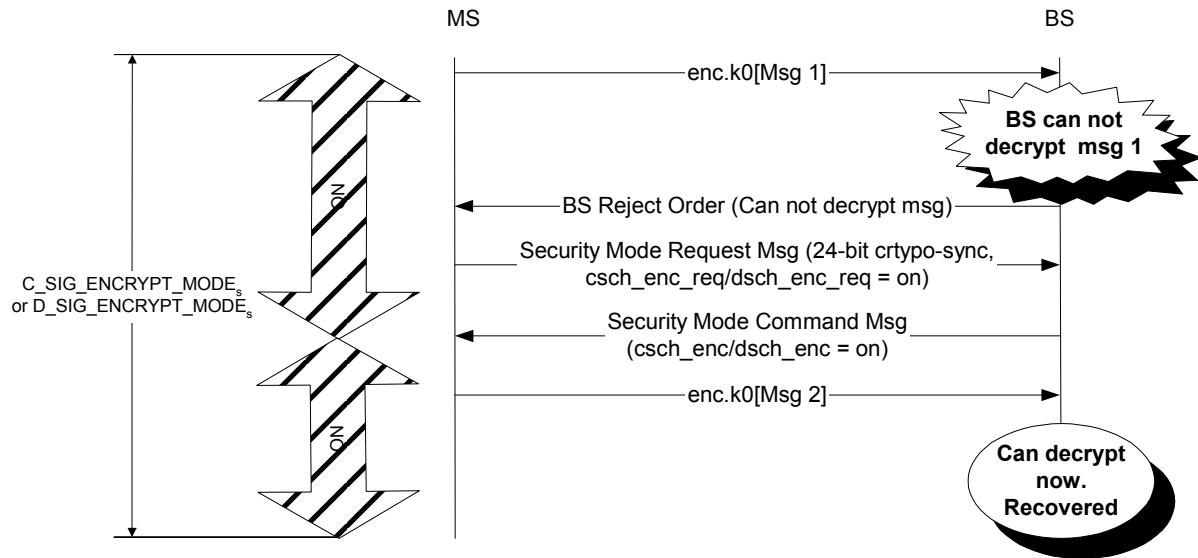
**Figure G-4. Implicit registration (MS crosses a SID/NID boundary during MS Idle State. MS originates before registering)**







**Figure G-7. MS fails to decrypt messages (MS recovers by re-registering after failing to re-synchronize the crypto-sync)**



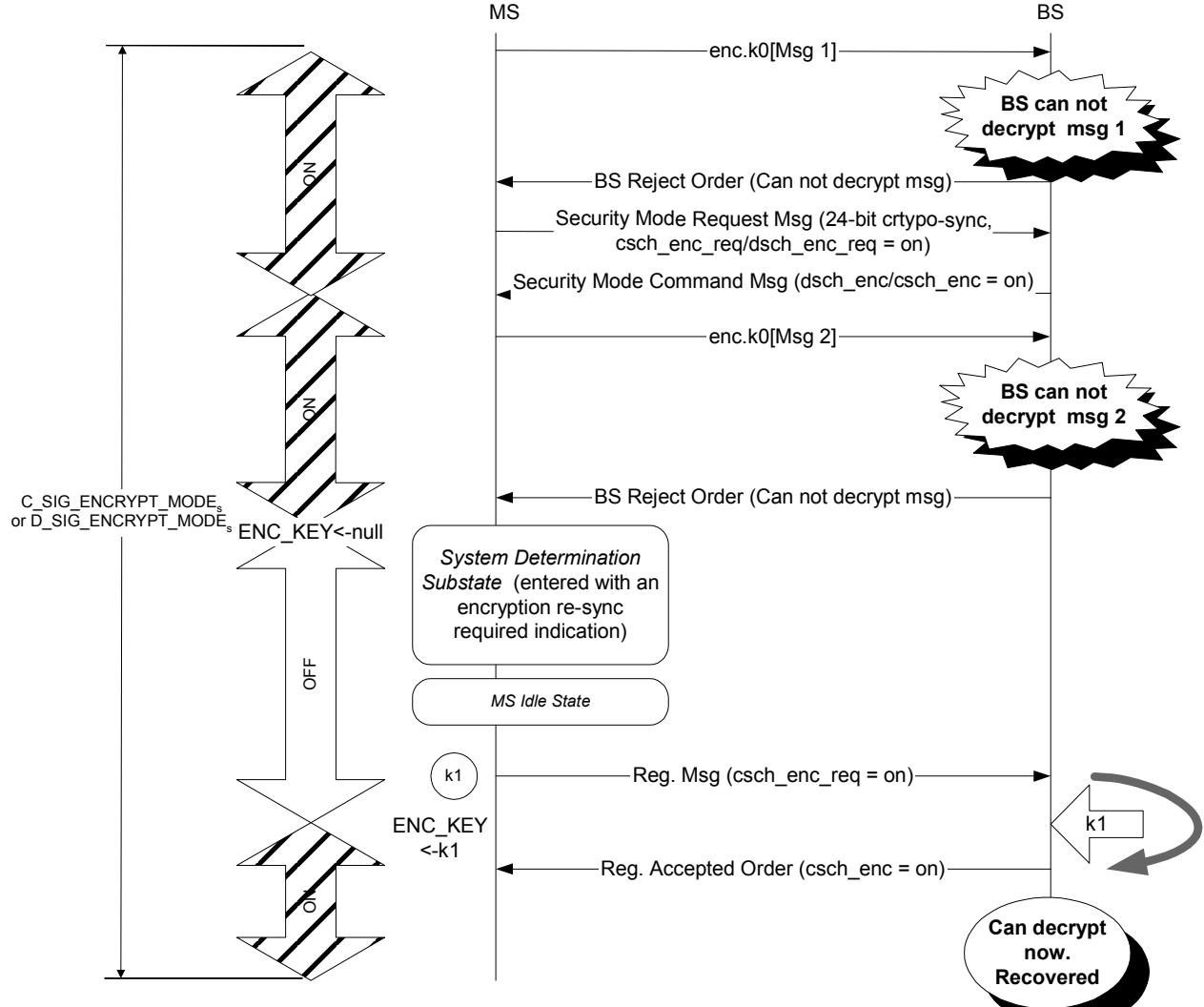
1

2

3

4

**Figure G-8. BS fails to decrypt messages (BS recovers by re-synchronizing the crypto-sync)**



**Figure G-9. BS fails to decrypt messages (BS recovers by forcing the MS to re-register after failing to re-synchronize the crypto-sync)**

1

2 No text