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**INTERFACE CONTROL DOCUMENT
FOR THE RDA/RPG**

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1 SCOPE

1.1 Identification

This document defines the interface between the Radar Data Acquisition (RDA) and Radar Product Generation (RPG) functional areas of the WSR-88D system. This document revision is applicable to the RDA design employing client/server technology and to the RPG design employing client/server technology. This new RDA design is more commonly called the Open RDA (ORDA). This new RPG design is more commonly called the Open RPG (ORPG).

1.2 Security

The RDA and RPG subnets are mission critical networks. No firewall will be used between these trusted systems; however, access control will be employed. The services allowed would include Network Time Protocol (NTP), radar data, Internet Control Message Protocol (ICMP), and Master System Control Function (MSCF) display data, all other services shall be denied.

1.3 System Overview

The WSR-88D acquires, generates, and distributes doppler radar products for meteorological and hydrological applications. Specifically, the RDA functional area acquires radar data; controls antenna, transmitter, and receiver electronics; prepares radar data in a digital format; transmits radar data and status to the RPG; and processes control information from the RPG. The RPG functional area receives radar data and status information from the RDA, formats and sends control commands to the RDA, generates radar products, and distributes radar products for graphical and alphanumeric display systems.

The WSR-88D system was developed in the mid to late 1980s. Full scale deployment began in 1992 and was completed in 1995. DoD, DoC, and DoT jointly sponsored the development, acquisition, and deployment of the WSR-88D. There are 158 operating sites which include the RDA and RPG functional areas.

1.4 Documentation Overview

This document provides information needed to interface either the RDA or the RPG functional areas of the WSR-88D. Contents include detailed description of the interface components including hardware and software parameters. The document is structured to address applicable layers of the Open System Interconnect (OSI) model and Transmission Control Protocol/Internet Protocol (TCP/IP) communications reference models.

Section 1 provides information regarding the identification, scope, purpose, and organization of this document.

Section 2 provides information about documentation relevant to this ICD, including applicable and informative documents.

Section 3 provides a description of the Application Layer.

Section 4 provides a list of acronyms included in this document.

2 REFERENCE DOCUMENTS

This section lists the number, title, revision, and date of all documents referenced in this specification. This section shall also identify the source for all documents not available through normal Government stocking activities.

2.1 Government Documents

2.1.1 Specifications

<u>Reference Number</u>	<u>Title</u>
2810000C	WSR-88D System Specification
2830013	WSR-88D System/Subsystem Design Document
2820001	Computer Program Development Specification for RDA Status and Control Program (CPCI-01)
2820003	Computer Program Development Specification for Radar Product Generation Program (B5, CPCI-03)
2830006, Pt. 1	Critical Item Development Specification for Wideband Communications Link (CI-06)
2620015A	Microwave Line of Sight (MLOS) Fault Alarm System
2620036	RPG to Base Data Distribution Server (BDDS) ICD
2830007 Pt. 1	RPG Equipment B1 and update (CI-07)
2830009 Pt.1	RDA Equipment B1 (CI-09)
2620060	RDA/RPG TCP/IP ICD
Source:	WSR-88D Radar Operations Center 3200 Marshall Avenue, Suite 110 Norman, OK 73072

2.2 Non-Government Documents

2.2.1 Industry Standards

<u>Reference Number</u>	<u>Title</u>
IEEE 754-1985	IEEE Standard for Binary Floating-Point Arithmetic
Source:	IEEE Customer Service 445 Hoes Lane PO Box.1331 Piscataway NJ 08855-1331 http://www.standards.ieee.org/

3 RDA TO RPG APPLICATION LAYER

The applications messages associated with TCP/IP for the RPG to RDA interface are specified herein. The specific WSR-88D operating procedures and product message formats are defined also.

3.1 Session Specific

3.1.1 TCP Client/Server Relationship

The TCP connection on the RPG side will be the client. The RDA connection will be the server.

3.1.2 TCP Port Mapping

One TCP connection to the host is established and as a Permanent Virtual Channel (PVC).

3.1.3 General Message Descriptions

All session messages have a three word integer header. All fields in the header are four octets in network (big endian) byte order. The first field (first four octets) of the header is the message type. The second field's function is message type dependent. The third field is the message size (number of octets of data following the header) excluding the message header.

<u>TCM Message Header</u>		
Message Type	Message Type Dependent	Server/Client Data Size
← 4 → octets	← 4 → octets	← 4 → octets

The following table contains the message types and message codes.

Session Message Type	Message Code
LOGIN	0
LOGIN ACKNOWLEDGEMENT	1
DATA	2
DATA ACKNOWLEDGEMENT	3
KEEP ALIVE	4

3.1.3.1 Login Message

3.1.3.1.1 Login Message Header

The login message has the following format:

<u>TCM LOGIN Message Header</u>		
Message Code = 0	WSR-88D Constant = 20983610	Message Length = Server/Client Data Size
← 4 → octets	← 4 → octets	← 4 → octets

Where message code is the LOGIN message code with a value of 0.

The WSR-88D Constant is an integer value equal to 20983610 (Decimal). This constant is used as a unique number for identifying the initial valid messages in communicating with WSR-88D system. The message length is the number of octets in the message excluding the header.

3.1.3.1.2 Login Message Body

The message body follows the header. The message body format is of variable string length:

<u>TCM LOGIN Message Body</u>						
Link Index		Number of PVCs on Link		PVC Index		Password
ASCII String Representing Integer Value of Link Index	Space	ASCII String Representing Integer Value of Number of PVCs, Typically Value of 1 or 2	Space	ASCII String Representing Integer Value of Number of PVCs, Typically Value of 0 or 1	Space	ASCII String Representing the Client's Password

The message body must be a NULL terminated ASCII string. Additional bytes following the string are allowed and ignored. The client side must send an appropriate LOGIN message on each PVC defined for the link. The password must be identical for all PVC's and must match that specified at the RDA. A link's PVCs are sequentially from 0 (PVC index) and may be opened in any order. An example of a login for the PVC 0 connection on link 5, which has 2 PVCs, will look like "5 2 0 password".

The client side must send a login message after a connection is established on each applicable PVC. Following successful login messages on all defined PVC's for a link, a login acknowledgment message is transmitted by the server on PVC 0. If any PVC's LOGIN message is incorrect, contains erroneous fields, or if LOGIN messages for all of the link's PVCs are not received within 30 seconds the initial LOGIN message, the entire link (all PVCs) is closed.

After the login message(s) from have been verified, the server side will send an acknowledgment message on PVC 0 connection and normal user message exchanges can then begin.

3.1.3.2 Login Acknowledgement Message

3.1.3.2.1 Login Acknowledgement Message Header

The LOGIN ACKNOWLEDGMENT message has the following header:

<u>TCM LOGIN Ack Header</u>		
Message Code = 1	WSR-88D Constant = 20983610	Message Length = Server/Client Data Size
← 4 → octets	← 4 → octets	← 4 → octets

Where message code is for the LOGIN ACKNOWLEDGEMENT message code which has a value of 1.

The WSR-88D Constant is equal to 20983610 (Decimal). This constant value is used as a unique number for identifying initial valid messages in communicating with WSR-88D system. The message length is the number of octets in the message excluding this header.

3.1.3.2.2 Login Acknowledgement Message Body

The format for the Login Acknowledgment message body which follows the header is:

<u>TCM LOGIN ACK Message Body</u>				
Link Index		Number of PVCs on Link		Connected
ASCII String Representing Integer Value of Link Index	Space	ASCII String Representing Integer Value of Number of PVCs, Typically Value of 1 or 2.	Space	ASCII String Representing the word "Connected"

The message body must be a NULL terminated ASCII string. Additional bytes following the string are allowed and ignored. The client side must send appropriate TCM_LOGIN message(s) on the PVCs defined for the link. The password must be identical for all PVCs and must match with that specified in the RDA TCP manager configuration file. A link's PVCs are identified from 0 (PVC index) and may be opened in any order. An example of the login acknowledgment message is string "5 2 connected", which indicates that link 5 of 2 PVCs is successfully connected and ready for user exchange. The server side sends a LOGIN ACKNOWLEDGMENT message on PVC 0 when all PVCs are connected and verification/authentication are completed. No other messages are allowed on any PVC until the login/login acknowledge sequence is complete.

3.1.3.3 Data Message

3.1.3.3.1 Data Message Header

The data message has the following header:

<u>TCM Data Message Header</u>		
Message Code = 2	Sequence	Message Length = Server/Client Data Size
← 4 → octets	← 4 → octets	← 4 → octets

Where message code is for the DATA message which is 2. The sending user application layer (either the RPG client or the RDA sever) may employ the sequence field for message acknowledgment purposes. If the sequence field is non-zero, the receiving user application should interpret it to mean that a data acknowledgment message is expected by the sending application. A sequence field of "0" indicates that no acknowledgment of this message is expected.

The user's application layer (either the RPG client or the RDA sever) may employ the sequence field, to request data acknowledgment messages, as needed for individual applications using these links. Use of sequential message numbers, acknowledgment of all data messages or acknowledgment of only specific data messages at certain times, any timeout handling for expected acknowledgments, etc., is left to the user application. Both server and client applications should implement support for

data acknowledgement messages. The Message Length is the length in octets of the application layer message which follows the Data Message Header. The application layer messages will follow this message header (See Section 8.2).

3.1.3.4 Data Acknowledgement Message

3.1.3.4.1 Data Acknowledgement Message Header

The data acknowledgment message has the following header:

<u>TCM DATA ACK Message Header</u>		
Message Code = 3	Sequence Field	Message Length = 0
← 4 → octets	← 4 → octets	← 4 → octets

Where Message Code is for the DATA ACKNOWLEDGMENT message type which is 3. This message should be sent by the receiving user application when a data message with non-zero sequence number is received. It is sent on the same PVC the data message was received. The "sequence" field contains the same number as the data message to be acknowledged. There is no data following the header so the message length is 0.

3.1.3.5 Keep Alive Message

3.1.3.5.1 Keep Alive Message Header

The keep-alive message has the following header:

<u>TCM KEEP ALIVE Message Header</u>		
Message Code = 4	Initializing Loopback	Message Length = 0
← 4 → octets	← 4 → octets	← 4 → octets

Where Message Code is for the KEEP ALIVE message which is 4. When a user application on one side of the PVC needs determine whether the line is still OK, it sends this message with a non-zero "init" field. A user application on either side, upon receiving this message, should respond by the same message with "init" reset to 0. There is no data following the header so the message length is 0.

3.1.4 Error Handling

Either side of a session link will close and disconnect TCP connections for all PVCs on the link detection of an error on any PVC. A disconnected client may attempt to reconnect at any time.

3.1.5 Disconnect

To disconnect the RPG session, simply close TCP connections for all PVCs. The session layer is not established unless all PVCs for the link have valid TCP connections.

3.2 Application Specific

3.2.1 Data Formats

The following data formats are referenced in this document:

Halfword	One halfword contains two bytes of data (16 bits)
SInteger	One halfword (16 bits) of integer data in standard 2's complement format.
SInteger*4	One full-word (32 bits) of integer data in standard 2's complement format.
Integer or Integer Code	Bit stream of 1s and 0s represented as an integer number, not formatted in 2's complement format. Normally used to represent bit settings or to represent only positive integer values. (16 bits)
Integer*4	Bit stream of 1s and 0s represented as an integer number, not formatted in 2's complement format. Normally used to represent bit settings or to represent only positive integer values. (32 bits)
Fixed Point	Integer values with an assumed decimal point whose position is defined by Scaled Integer, the precision of the item.
Float	One full word (32 bits) of floating point data following IEEE 754 standard
Char	One halfword (16 bits) of data represented by ASCII value.
String	Multiple characters with each halfword (16 bits) representing one ASCII value.

3.2.2 Operating Procedures

The data messages to be transferred between the RDA and the RPG are listed in Table I. The data messages will be exchanged after a successful session is established. A message header of format specified in Table II is attached to each message transmitted across the link.

Table I Data Message Types

*** = metadata**

Type	Description	Source	Recipient	Format
1*1	Digital Radar Data	RDA	RPG	Table III
2*	RDA Status Data	RDA	RPG/RMS	Table IV
3*	Performance/Maintenance Data	RDA	RPG/RMS	Table V
4	Console Message	RDA	RPG/RMS	Table VI
5*	Volume Coverage Pattern	RDA	RPG	Table XI
6	RDA Control Commands	RPG	RDA	Table X
7	Volume Coverage Pattern	RPG	RDA	Table XI
8	Clutter Censor Zones	RPG	RDA	Table XII
9	Request for Data	RPG	RDA	Table XIII
10	Console Message	RPG	RDA/RMS	Table VI
11	Loop Back Test	RDA	RPG	Table VIII
12	Loop Back Test	RPG	RDA	Table VIII
13*	Clutter Filter Bypass Map	RDA	RPG	Table IX
14	Spare	N/A	N/A	N/A
15*	Clutter Filter Map	RDA	RPG	Table XIV
16	Reserved/FAA RMS Only	N/A	N/A	N/A
17	Reserved/FAA RMS Only	N/A	N/A	N/A
18*	RDA Adaptation Data	RDA	RPG/RMS	Table XV
20	Reserved	N/A	N/A	N/A
21	Reserved	N/A	N/A	N/A
22	Reserved	N/A	N/A	N/A
23	Reserved	N/A	N/A	N/A
24	Reserved/FAA RMS only	N/A	N/A	N/A
25	Reserved/FAA RMS only	N/A	N/A	N/A
26	Reserved/FAA RMS only	N/A	N/A	N/A

3.2.2.1 Messages from RDA

Per Table I, data transmitted from the RDA to the RPG consists of Digital Radar Data (Message 1), RDA Status Data (Message 2), RDA Performance/Maintenance Data (Message 3), Console Messages (Message 4), Volume Coverage Pattern Data (Message 5), Loop Back Test (Message 11), Clutter Filter Bypass Map (Message 13), Clutter Filter Map (Message 15) and RDA Adaptation Data (Message 18).

Digital Radar Data format is given in Table III, RDA Status Data format is given in Table IV, RDA Performance/Maintenance Data format is given in Table V, Console Message format is given in Table VI, Volume Coverage Pattern Data is given in Table XI, Loop Back Test format is given in Table VIII, Clutter Filter Bypass Map format is given in Table IX, Clutter Filter Map Data is given in table XIV and RDA Adaptation Data is given in Table XV.

The RDA sends the ICD format message to the RPG. At the RPG end, the communications manager (RPG software task) inserts an additional 12 bytes to the ICD format message. The communications manager also inserts a communications manager header to the message, and then the message is sent to the RPG ingest application. This is also the same information, which is sent to the Base Data Distribution System (BDDS) processor.

3.2.2.1.1 Metadata Message Types and Purpose

The capability to perform Level II recording has been moved from the RDA to the RPG. In order to continue to provide Metadata for the Level II, the following Message Types need to be sent from the RDA to the RPG (see Table I) along with Message Type 1, Digital Radar Data:

- 1 - Digital Radar Data
- 2 - RDA Status Data
- 3 - Performance/Maintenance Data
- 5 - Volume Coverage Pattern Data
- 13 - Clutter Filter Bypass Map Data
- 15 - Clutter Filter Map Data
- 18 - RDA Adaptation Data

The RDA will send messages 2, 3, 5, 13, 15 and 18 upon wideband connection and prior to going to "OPERATE" state. The RDA will send messages 2, 3 and 5 prior to sending message 1 at the beginning of each VCP. RDA will send message 13 whenever there is a change to the Clutter Filter Bypass Map Data. RDA will send message 15 whenever there is a change to Clutter Filter Map Data. RDA will send message 18 whenever there is a change to RDA Adaptation Data.

3.2.2.2 Messages from RPG

Per Table I, data to be transmitted from the RPG to the RDA consists of: RDA Control Commands (Message 6), Volume Coverage Patterns data (Message 7), Clutter Censor Zones data (Message 8), Requests for Data (Message 9), Console Messages (Message 10) and Loop Back Test (Message 12).

RDA Control Command format is given in Table X, Volume Coverage Pattern format is given in Table XI, Clutter Censor Zones format is given in Table XII, Requests for Data format is given in Table XIII, Console Messages format is given in Table VI and Loop Back Test messages format in Table VIII. The transmitted message to the RDA will then consist of the RDA/RPG ICD format message (i.e., message header followed by message data).

3.2.3 Message Descriptions

The following sections define the message formats exchanged via this interface. The Message Header, as defined in Table II, is appended to the beginning of all messages transmitted between the RDA and the RPG. The Message Header identifies system configuration, message number of information following the header, date, time and number of segments to be transmitted for messages exceeding 1208 halfwords, including the Message Header. Messages with lengths greater than 1208 halfwords (2416 bytes) are divided into multiple segments, each with a maximum length of 1208 halfwords. For messages with length less than 1208 halfwords, the number of message segments is one and the individual segment number in the Message Header is not applicable.

3.2.3.1 Digital Radar Data

Digital Radar Data message format is provided in Table III. The message consists of base data information, that is, reflectivity, mean radial velocity and spectrum width, azimuth angle, elevation angle, cut type, scanning strategy and calibration parameters. The frequency and volume of the message will be dependent on the scanning strategy and the type of data associated with that scanning strategy.

3.2.3.2 RDA Status Data

RDA Status Data message format is provided in Table IV. The message contains information about the current RDA state, system control, operating status, scanning strategy selected, performance

parameters such as transmitter power and calibration and alarms. Alarms contained in this message are summarized in table IV-A. The RDA Status Data message is sent upon wideband connection, following state or control changes, at the beginning of each volume scan and after an RPG request.

3.2.3.3 Performance/Maintenance Data

The Performance/Maintenance Data message format is provided in Table V. The Performance/Maintenance Data message contains status of RDA sub-functions such as the receiver, transmitter and antenna/pedestal. The RDA sends this message upon wideband connection, at the beginning of each volume scan and after an RPG request.

3.2.3.4 Console Message

The Console Message format is provided in Table VI. When the RDA sends this message to the RPG, the Message Type indicated in the Message Header is 4. When the RPG sends this message to the RDA, the Message Type indicated in the Message Header is 10. The Console Message consists of an ASCII text string composed by the system user to communicate with other RDA, RPG or RMS users. The RDA sends the Console Message upon selection by the system user.

3.2.3.5 Volume Coverage Pattern

The Volume Coverage Pattern message format is provided in Table XI. When the RDA sends this message to the RPG, the Message Type indicated in the Message Header is 5. When the RPG sends this message to the RDA, the Message Type indicated in the Message Header is 7. The RDA sends the Volume Coverage Pattern message upon wideband connection and at the beginning of each volume scan.

3.2.3.6 RDA Control Commands

The RDA Control Commands message format is provided in Table X. The message contains commands to select RDA state, control, operating mode, channel and volume scan strategies.

3.2.3.7 Clutter Censor Zone

The Clutter Censor Zone message format is provided in Table XII. The message contains range, azimuth and elevation information for operator defined clutter censor zones. When the RDA receives a Clutter Censor Zone message, the Clutter Filter Map message is recomputed and transmitted to the RPG.

3.2.3.8 Request for Data

The Request for Data message format is provided in Table XIII. The message allows an RPG operator to request RDA Status Data, Performance/Maintenance Data, Clutter Filter Bypass Map, Clutter Filter Map, RDA Adaptation Data and Volume Coverage Pattern Data.

3.2.3.9 Loop Back Test

The Loop Back Test message format is provided in Table VIII. When the RDA sends this message to the RPG, the Message Type indicated in the Message Header is 11. When the RPG sends this message to the RDA, the Message Type indicated in the Message Header is 12. The Loop Back Test message transmits a sequence of bit data to verify RDA to RPG communication. The RDA sends Message Type 11 to the RPG upon wideband connection. After receipt, the RPG re-sends Message Type 11 to the RDA without any modifications. The RPG sends Message Type 12 to the RDA upon wideband connection. After receipt, the RDA re-sends Message Type 12 to the RPG without any modifications.

3.2.3.10 Clutter Filter Bypass Map

The Clutter Filter Bypass Map message format is provided in Table IX. The Clutter Filter Bypass Map contains information about which range bins are designated as clutter for the designated elevation segment and azimuth angle. When the RDA generates a new clutter bypass map, the Clutter Filter Map message is recomputed and transmitted to the RPG.

3.2.3.11 Clutter Filter Map

The Clutter Filter Map message format is provided in Table XIV. The Clutter Filter Map contains the combined clutter censor zone information and clutter bypass map information. The RDA sends the Clutter Filter Map message upon wideband connection and whenever there is a change to the Clutter Filter Map. When the RDA generates a new clutter bypass map or receives new clutter censor zone information, the Clutter Filter Map message is recomputed and transmitted to the RPG.

3.2.3.12 Adaptation Data

The Adaptation Data message format is provided in Table XV. The Adaptation Data message contains system parameters used by the RDA to determine alarm thresholds, signal processing parameters, and system configuration. The RDA sends the Adaptation Data message upon wideband connection and whenever there is a change to the data.

3.2.4 Message Tables

All bit locations are referenced to location 0 (LSB).

Table II – Message Header Data

NAME	DESCRIPTION	FORMAT (3)	UNITS	RANGE	ACCURACY / PRECISION	BYTE LOCATION
Message Size	Message size in halfwords (1)	Integer	Halfwords	9 to 1208	1	0 and 1
RDA Redundant Channel	Channel Numbers for: Legacy 0 = Single Channel (no bits set) 1 = Redundant Channel 1 (bit 0 set) 2 = Redundant Channel 2 (bit 1 set) ORDA 8 = Single Channel (bit 3 set) 9 = Redundant Channel 1 (bits 3 & 0 set) 10 = Redundant Channel 2 (bits 3 & 1 set)	Integer*1	ID Number	0 to 10	1	2
Message Type	Integer code from Table I	Integer	N/A	1 to 26	N/A	3
I.D. Sequence Number	Message Sequence Number	Integer	ID Number	0 to 32,767 then roll over to 0	1	4 and 5
Julian Date	Julian Date - 2440586.5 (2)	Integer	Days	1 to 65,535	1	6 and 7
Milliseconds of Day	Number of milliseconds from Midnight, Greenwich Mean Time	Integer	Milliseconds	0 to 86,399,999	± 2000/ ± 1	8 to 11
Number of Message Segments	Message larger than 1208 halfwords are segmented and transmitted separately	Integer	Segments	1 to 32,767	1	12 and 13
Message Segment Number	Segment number of this message	Integer	Segment ID Number	1 to 32,767	1	14 and 15

(1) This is the message size for this message segment, not for the total of all segments in the message.

(2) 1 January 1970 00.00 Greenwich Mean Time = 1 Modified Julian Date.

(3) All bit locations are referenced to location 0 (LSB).

Table III – Digital Radar Data (Message Type 1)

NAME	DESCRIPTION	FORMAT	UNITS	RANGE	ACCURACY / PRECISION	BYTE LOCATION
Collection Time	Zulu reference time at which radial data was collected	Integer*4	millisecond	0 to 86,399,999	$\pm 2000/\pm 1$	0 to 3
Modified Julian Date	Current Julian date - 2440586.5 ⁽¹⁾	Integer	Day	1 to 65,535	1	4 and 5
Unambiguous Range	Unambiguous range, Interval Size	Integer ⁽²⁾	Km	115 to 511	$\pm 0.1/\pm 0.1$	6 and 7
Azimuth Angle ⁽³⁾	Azimuth angle at which radial data was collected	Integer ⁽⁴⁾	Deg.	0 to 359.956055	$\pm 0.1°/\pm 0.043945°$	8 and 9
Azimuth Number ⁽³⁾	Radial number within elevation cut	Integer	Count	1 to 400	1	10 and 11
Radial Status	Radial Status (e.g. first, last)	Integer ⁽⁵⁾	N/A	N/A	N/A	12 and 13
Elevation Angle ⁽⁶⁾	Elevation angle at which radial radar data was collected	Integer ⁽⁴⁾	Deg.	353 to 70	$\pm 0.1°/\pm 0.043945°$	14 and 15
Elevation Number ⁽⁶⁾	Elevation number within volume scan	Integer	Count	1 to 25	1	16 and 17
Surveillance Range	Range to center of first surveillance gate (BIN)	Integer Code ⁽²⁾⁽⁷⁾	Km	-32.768 to +32.767	$\pm 0.05/\pm 0.001$	18 and 19
Doppler Range	Range to center of first Doppler gate (BIN)	Integer Code ⁽²⁾⁽⁷⁾	Km	-32.768 to +32.767	$\pm 0.05/\pm 0.001$	20 and 21
Surveillance Range Sample Interval	Size of surveillance sample interval	Integer ⁽²⁾⁽⁷⁾	Km	0.25 to 4	$\pm 0.05/\pm 0.001$	22 and 23
Doppler Range Sample Interval	Size of Doppler Sample Interval	Integer ⁽²⁾⁽⁷⁾	Km	0.25 to 4	$\pm 0.05/\pm 0.001$	24 and 25
Number of Surveillance Bins	Number of surveillance bins for current radial	Integer	Count	0 to 460	1	26 and 27
Number of Doppler Bins	Number of Doppler bins for current radial	Integer	Count	0 to 920	1	28 and 29
Cut Sector Number	Sector Number within cut	Integer	Count	0 to 3 ⁽¹⁴⁾	1	30 and 31
Calibration Constant (dBZ0)	Scaling constant used by Signal Processor to calculate reflectivity	Float ⁽¹⁵⁾	dB	-99.0 to +99.0	$\pm 1/N/A$	32 to 35

NAME	DESCRIPTION	FORMAT	UNITS	RANGE	ACCURACY / PRECISION	BYTE LOCATION
Surveillance Pointer	Pointer to first location of surveillance data in radial	Integer	BYTE	100 ⁽⁸⁾	1	36 and 37
Velocity Pointer	Pointer to first location of, velocity data in radial	Integer	BYTE	100 to 560 ⁽⁸⁾	1	38 and 39
Spectral Width Pointer	Pointer to first location of spectral width data in radial	Integer	BYTE	100 to 1480 ⁽⁸⁾	1	40 and 41
Doppler Velocity Resolution	Indicates scaling used for the Doppler Velocity	Integer Code	N/A	2 = 0.5 m/s 4 = 1.0 m/s	N/A	42 and 43
Volume Coverage Pattern Number	Identifies Volume Coverage Pattern being used	Integer	N/A	1 to 767	1	44 and 45
Spare	Reserved for use by V + V Simulator (CPCI 24)					spare
Spare					1	54 and 55
Spare					1	56 and 57
Spare					1	58 and 59
Nyquist Velocity	Nyquist Velocity	Fixed Point Scaled Integer	m/s	8 to 35.61 ⁽¹⁷⁾	± .003/ ± .01	60 and 61
ATMOS	Atmospheric Attenuation Factor	Fixed Point Scaled Integer	dB/Km	-.02 to -.002	± .004/ ± .001	62 and 63
TOVER	Threshold parameter which specifies the minimum difference in echo power between two resolution cells for them not to be labeled "overlaid"	Fixed Point Scaled Integer	dB	0.0 to 20.0	± .1/ ± .1	64 and 65
Radial Spot Blanking Status	Spot blanking status for current radial, elevation cut and volume scan.	Integer ⁽⁹⁾	N/A	1=radial 2=elevation 4=volume	N/A	66 and 67
Spare	Undefined (for future expansion)					68 to 99
Reflectivity	Weather radar surveillance data (0 to 460 Cells)	Fixed Point Scaled Byte ⁽¹⁰⁾⁽¹¹⁾	dBz	-32 to +94.5	± 1/ ± 0.5	100 to 559
Doppler Velocity	Weather radar velocity data (0 to 920 Cells)	Fixed Point Scaled Byte ⁽¹⁰⁾⁽¹¹⁾	m/s	-36 to +36	± 1/0.5 ± 1/1	100 to 1479 ⁽¹²⁾
Doppler Spectrum	Weather radar spectral width data (0 to 920 Cells)	Fixed Point Scaled	m/s	-63.5 to +63	± 1/0.5	100 to 2399 ⁽¹³⁾

NAME	DESCRIPTION	FORMAT	UNITS	RANGE	ACCURACY / PRECISION	BYTE LOCATION
Width		Byte ⁽¹⁰⁾⁽¹¹⁾				

(1) 1 January 1970 00.00 GMT = 1 Modified Julian Date

(2) Fixed Point Scaled

(4) Format Defined in Table III-A

(5) Format Defined in Table III-C

(7) Format Defined in Table III-B

(8) A 0 indicates No Data.

(9) Equals 0 when spot blanking disabled; equals 4 when spot blanking enabled and no spot blanking radials in current elevation cut; equals 6 when there are spot blanked radials in current elevation cut and current radial not spot blanked; equals 7 when current radial is spot blanked.

(10) Code of 00 is Signal Below Threshold, Code of 01 is Signal Overlaid

(11) See Table III-E for Scaling - Range of Doppler Velocity set in accordance with Doppler Velocity Resolution

(12) Byte Start Location depends on length of Reflectivity Field, Byte Stop Location depends on Length of Velocity Field.

(13) Byte Start Location depends on length of Reflectivity and Velocity Fields, Byte Stop Location depends on Length of Spectral Width Field.

(14) 0 is valid only for continuous surveillance cuts.

(15) This is now an IEEE 754 standard and not a Concurrent floating point representation.

(16) One full word (32 bits) of floating point data following IEEE 754 standard.

(17) Values shown exceed practical range used by NEXRAD radar that is larger than typical minimum and maximum values.

Table III-A Angle Data Format

	Angle Data Format (Degrees)
BIT #	MEANING
15	180 deg
14	90 deg
13	45 deg
12	22.5 deg
11	11.25 deg
10	5.625 deg
9	2.8125 deg
8	1.40625 deg
7	0.70313 deg
6	0.35156 deg
5	0.17578 deg
4	0.08789 deg
3 (LSB)	0.043945 deg
2	X
1	X
0	X

X = NOT APPLICABLE

NOTE: A positive elevation angle is defined as being up from the horizontal plane, and a positive azimuth angle is defined as being clockwise from true north, when looking down at the radar.

NOTE: Elevation angles greater than 90 degrees will be interpreted as a negative angle and the actual elevation angle will be computed as the angle value minus 360 degrees.

NOTE: For Elevation and Azimuth Position Correction factors, angles greater than 1 degree will be interpreted as a negative angle and the actual correction factor will be computed as the angle value minus 360 degrees.

Table III-B Range Format

	Range Format (Km)
BIT #	MEANING
15	Sign
14	16.384
13	8.192
12	4.096
11	2.048
10	1.024
9	0.512
8	0.256
7	0.128
6	0.064
5	0.032
4	0.016
3	0.008
2	0.004
1	0.002
0 (LSB)	0.001

Table III-C Radial Status Data Format

Radial Status Indicator (Hex)	Setting (Hex)	Bad Data (Hex)
Start of new Elevation	00	80
Intermediate Radial Data	01	81
End of Elevation	02	82
Beginning of Volume Scan	03	83
End of Volume Scan	04	84

Table III-E Base Data Scaling

LSB = 0.5	$R = \text{NINT} [2. * (R_{\text{num}} + 32.)] + 2$
LSB = 0.5	$V = \text{NINT} [2. * (V_{\text{num}} + 63.5)] + 2$
LSB = 1.0	$V = \text{NINT} [V_{\text{num}} + 127.] + 2$
LSB = 0.5	$SW = \text{NINT} [2. * (SW_{\text{num}} + 63.5)] + 2$

Where:

NINT is a rounding function (i.e., NINT[1.5] returns 2) R_{num} , V_{num} , SW_{num} are values before scaling.

The inverse relationships are:

$$R_{\text{num}} = (R \div 2) - 33.0$$

$$V_{\text{num}} = (V \div 2) - 64.5 \text{ or } V - 129.0$$

$$SW_{\text{num}} = (SW \div 2) - 64.5$$

Table IV RDA Status Data (Message Type 2)

NAME	DESCRIPTION	FORMAT (3), (4)	UNITS	RANGE (OR VALUE)	ACCURACY/ PRECISION	HALFWORD LOCATION
RDA STATUS	Start-Up Standby Restart Operate Spare Off-line Operate	Integer Code, mutually exclusive	N/A	As Listed 2 (bit 1 set) 4 (bit 2 set) 8 (bit 3 set) 16 (bit 4 set) 32 (bit 5 set) 64 (bit 6 set)	N/A	1
OPERABILITY STATUS	RDA - On-line RDA - Maintenance Action Required RDA - Maintenance Action Mandatory RDA - Commanded Shut Down RDA - Inoperable RDA - Automatic Calibration Disabled	Integer Code	N/A	As Listed 2 (bit 1 set) 4 (bit 2 set) 8 (bit 3 set) 16 (bit 4 set) 32 (bit 5 set) Add 1 (bit 0) to above codes	N/A	2
CONTROL STATUS (Mutually Exclusive)	Local Only RPG (Remote) Only Either	Integer Code, mutually exclusive	N/A	As Listed 2 (bit 1 set) 4 (bit 2 set) 8 (bit 3 set)	N/A	3
AUXILIARY POWER GENERATOR STATE	Utility PWR Available Generator On Transfer Switch - Manual Commanded Switchover Switched to Auxiliary Power	Integer Code	N/A	As Listed 2 (bit 1 set) 4 (bit 2 set) 8 (bit 3 set) 16 (bit 4 set) Add 1 (bit	N/A	4

NAME	DESCRIPTION	FORMAT (3), (4)	UNITS	RANGE (OR VALUE)	ACCURACY/ PRECISION	HALFWORD LOCATION
				0) to above codes		
AVERAGE TRANSMITTER POWER	Calculated over a range of samples	Integer	Watts	0 to 9999	$\pm 1/\pm 1$	5
REFLECTIVITY CALIBRATION CORRECTION (delta dBZ0)	Difference from Adaptation Data	Fixed Point, Scaled Integer	dB	-198.00 to +198.00 (5)	1/0.01	6
DATA TRANSMISSION ENABLED	(Any combination of Data Enabled) None Reflectivity Velocity Width	Integer Code	N/A	As Listed 2 (bit 1 set) 4 (bit 2 set) 8 (bit 3 set) 16 (bit 4 set)	N/A	7
VOLUME COVERAGE PATTERN NUMBER	(Magnitude defines Pattern, Sign defines selection) No Pattern Test Operational Constant Elevation Types RDA Local Pattern Selected RDA Remote Pattern Selected	SInteger	N/A	As Listed 0 Number > 255 Number \leq 255 1 to 99 Negative Positive	1	8
RDA CONTROL AUTHORIZATIO N	No Action Local Control Requested Remote Control Enabled (a.k.a. Local Control Released)	Integer Code, mutually exclusive	N/A	As Listed 0 2 (bit 1 set) 4 (bit 2 set)	N/A	9
RDA BUILD NUMBER	RDA major & minor build version information	Fixed Point, Scaled Integer	N/A	0 to 999 (6)	N/A	10
OPERATIONAL MODE	Test Operational Maintenance	Integer Code, mutually exclusive	N/A	As Listed 2 (bit 1 set) 4 (bit 2	N/A	11

NAME	DESCRIPTION	FORMAT (3), (4)	UNITS	RANGE (OR VALUE)	ACCURACY/ PRECISION	HALFWORD LOCATION
				set) 8 (bit 3 set)		
SPARE						12
SPARE						13
SPARE						14
RDA ALARM SUMMARY	No alarms Tower/Utilities Pedestal Transmitter Receiver RDA Control Communication Signal Processor	Integer Code	N/A	As Listed 0 2 (bit 1 set) 4 (bit 2 set) 8 (bit 3 set) 16 (bit 4 set) 32 (bit 5 set) 64 (bit 6 set) 128 (bit 7 set)	N/A	15
COMMAND ACKNOWLEDG MENT	No Acknowledgment Remote VCP Received Clutter Bypass map Received Clutter Censor Zones Received Redundant Chan Ctrl Cmd Accepted	Integer	N/A	As listed 0 1 2 3 4	N/A	16
CHANNEL CONTROL STATUS	Identifies whether channel is the controlling channel: Controlling Non-controlling	Integer Code	N/A	As Listed 0 1 (bit 0 set)	N/A	17
SPOT BLANKING STATUS	Status of Spot Blanking: Not Installed Enabled Disabled	Integer Code, mutually exclusive	N/A	As Listed 0 2 (bit 1 set) 4 (bit 2 set)	N/A	18
BYPASS MAP GENERATION DATE	Julian Date - 2440586.5 Note ⁽¹⁾	Integer	Days	1 to 65535	1	19
BYPASS MAP GENERATION	Number of minutes since midnight,	Integer	Minute s	0 to 1440	1	20

NAME	DESCRIPTION	FORMAT (3), (4)	UNITS	RANGE (OR VALUE)	ACCURACY/ PRECISION	HALFWORD LOCATION
TIME	Greenwich Mean Time					
CLUTTER FILTER MAP GENERATION DATE	Julian date - 2440586.5 Note ⁽¹⁾	Integer	Days	1 to 65535	1	21
CLUTTER FILTER MAP GENERATION TIME	Number of minutes since Midnight, Greenwich Mean Time	Integer	Minute s	0 to 1440	1	22
SPARE						23
TRANSITION POWER SOURCE STATUS	Status of TPS: Not Installed OFF OK	Integer	NA	As Listed 0 1 3	N/A	24
RMS CONTROL STATUS Note ⁽²⁾	Status of RMS Control: NON-RMS SYSTEM RMS IN CONTROL RDA IN CONTROL	Integer Code, mutually exclusive	N/A	As Listed 0 2 (bit 1 set) 4 (bit 2 set)	N/A	25
SPARE						26
ALARM CODES	One condition per halfword (Maximum of 14 alarms sent at a time). See Alarm Message Table IV-A for individual alarm codes. MSB set indicates alarm has been removed.	Integer	N/A	0 to 800	N/A	27 to 40

(1) January 1970 00.00 Greenwich Mean Time = 1 Modified Julian Date

(2) FAA redundant radars with RMS installed

(3) All bit references start from 0 (LSB).

(4) Unless otherwise indicated as mutually exclusive, Integer Code Formats can set multiple bits in the same message. For example, in case bits 1 and 2 are set, then the integer value passed would be $2 + 4 = 6$.

(5) The data in this field is stored as a scaled integer. The format is XXX.YY. For example, -198.00 equals a value of -19800. A value of +0.25 would equal a value of 25.

(6) Build Version format is XX.Y where XX indicates the major build version and Y indicates the minor build version. This information is stored in scaled integer format. For example, Build 7.0 equals a value of 70. Build 99.9 equals a value of 999.

3.2.4.1.1 RDA Alarm Message Summary

This following table summarizes alarms generated by the CPCI-01 Program. Alarms are grouped by functional areas. Each alarm is described as it is seen displayed in the alarm message on the RDA HCI and at the RPG.

The "CODE" column is the unique alarm number given for identification purposes.

The "STATE" column indicates the state of the RDA as a result of alarm indicated:

MM = Maintenance Mandatory

MR = Maintenance Required

IN = Inoperative

SEC = Secondary (secondary alarms are not specifically tied to a "STATE" change).

N/A = Not applicable

The "ALARM TYPE" column indicates that alarms are classified as three different alarm types based on how alarms are reported to the RDA.

ED - Alarms identified in the table as ED (Edge Detected) are reported every time the test associated with the alarm fails consecutively for a number of times equal to the alarm reporting count (see "Sample" column). Such alarms will be removed (MSB set) when the test outcome first passes after the alarm is reported.

OC - Alarms identified in the table as OC (Occurrence) are reported each time the outcome of the associated test is FAILED.

FO - Alarms identified in the table as FO (Filtered Occurrence) are reported each time the outcome of the associated test is failed, but are not reported within 15 minutes of the last reporting.

The "DEVICE" column indicates the hardware device area where the alarm has occurred (if applicable); acronyms under the DEVICE column are as follows:

CTR = Control

PED = Pedestal

RCV = Receiver

SIG = Signal Processor

COM = Communications

UTL = Tower/Utilities

XMT= Transmitter

The "SAMPLE" column indicates the number of samples (failures) that must occur before this alarm is displayed.

The "ALARM MESSAGE" column is an abbreviated description of the alarm message that is displayed at both the RDA.

Table IV-A RDA Alarm Messages

CODE	STATE	ALARM TYPE	DEVICE	SAMPLE	ALARM MESSAGE
0	N/A	N/A	N/A		NO ALARMS
1	N/A	N/A	N/A		RESERVED
2	N/A	N/A	N/A		RESERVED
3 - 15	N/A	N/A	N/A		SPARE
16	SEC	FO	COM		SEND WIDEBAND STATUS TIMED OUT
17	MR	ED	COM	1	NTP FAILURE
18	MR	ED	COM	1	GPS FAILURE
19	MR	ED	COM	1	GPS ANTENNA FAILURE
20	MM	ED	COM	1	RPG LINK - RED ALARM (NO RX)
21	MM	ED	COM	1	RPG LINK - YELLOW ALARM
22	MM	ED	COM	1	RPG LINK - BLUE ALARM
23	MM	ED	COM	1	RDA CSU FAILURE
24	MR	ED	COM	1	SNMP TIME OUT: LAN SWITCH
25	MR	ED	COM	1	SNMP TIME OUT: ROUTER
26	MR	ED	COM	1	SNMP TIME OUT: RDA UPS
27	MR	ED	COM	1	SNMP TIME OUT: POWER ADMINISTRATOR
28	MR	ED	COM	1	SNMP TIME OUT: GPS
29	N/A	N/A	N/A		SPARE
30	MR	ED	COM	1	SNMP TIME OUT: REMOTE ACCESS SERVER
31	MR	ED	COM	1	LAN SWITCH PORT 1 FAIL
32	MR	ED	COM	1	LAN SWITCH PORT 2 FAIL
33	MR	ED	COM	1	LAN SWITCH PORT 3 FAIL
34	N/A	N/A	N/A	1	SPARE
35	MR	ED	COM	1	LAN SWITCH PORT 5 FAIL
36	MR	ED	COM	1	LAN SWITCH PORT 11 FAIL
37	MR	ED	COM	1	LAN SWITCH PORT 12 FAIL
38	MR	ED	COM	1	REMOTE LOGIN THROUGH REMOTE ACCESS SERVER
39	SEC	OC	COM		FAILED REMOTE ACCESS SERVER AUTHENTICATION
40	IN	ED	XMT	2	FILAMENT POWER SUPPLY OFF
41	N/A	N/A	N/A		SPARE
42	N/A	N/A	N/A		SPARE
43	IN	ED	XMT	3	WAVEGUIDE SWITCH FAILURE
44	IN	ED	XMT	2	WAVEGUIDE/PFN TRANSFER INTERLOCK
45	IN	ED	XMT	2	XMTR IN MAINTENANCE MODE
46	IN	ED	XMT	1	XMTR UNAVAILABLE
47	IN	ED	XMT	3	PFN/PW SWITCH FAILURE
48	MM	ED	XMT	2	XMTR +5VDC POWER SUPPLY 6 FAIL
49	MM	ED	XMT	2	XMTR +15VDC POWER SUPPLY 4 FAIL
50	MM	ED	XMT	2	XMTR +28VDC POWER SUPPLY 3 FAIL
51	MM	ED	XMT	2	XMTR -15VDC POWER SUPPLY 5 FAIL
52	MM	ED	XMT	2	XMTR +45VDC POWER SUPPLY 7 FAIL
53	MM	ED	XMT	1	FILAMENT POWER SUPPLY VOLTAGE FAIL
54	MM	ED	XMT	1	VACUUM PUMP POWER SUPPLY VOLTAGE

CODE	STATE	ALARM TYPE	DEVICE	SAMPLE	ALARM MESSAGE
					FAIL
55	MM	ED	XMT	1	FOCUS COIL POWER SUPPLY VOLTAGE FAIL
56	MM	ED	XMT	2	CIRCULATOR OVERTEMP
57	MM	ED	XMT	2	SPECTRUM FILTER LOW PRESSURE
58	MM	ED	XMT	2	WAVEGUIDE ARC/VSWR
59	MM	ED	XMT	1	XMTR CABINET INTERLOCK OPEN
60	MM	ED	XMT	2	XMTR CABINET OVER TEMP
61	MM	ED	XMT	2	XMTR CABINET AIR FLOW FAIL
62	MR	ED	XMT	1	XMTR MAINTENANCE REQUIRED
63	N/A	N/A	N/A		SPARE
64	MM	ED	XMT	1	MODULATOR OVERLOAD
65	MM	ED	XMT	1	MODULATOR INVERSE CURRENT FAIL
66	MM	ED	XMT	1	MODULATOR SWITCH FAILURE
67	MM	ED	XMT	1	XMTR MAIN POWER OVER VOLTAGE
68	MM	ED	XMT	1	CHARGING SYSTEM FAILURE
69	MM	ED	XMT	1	CHARGING SYSTEM INVERSE CURRENT FAILURE
70	MM	ED	XMT	1	TRIGGER AMPLIFIER FAILURE
71	N/A	N/A	N/A		SPARE
72	MM	ED	XMT	1	XMTR OVER VOLTAGE
73	MM	ED	XMT	1	XMTR OVER CURRENT
74	MM	ED	XMT	1	FOCUS COIL CURRENT FAILURE
75	MM	ED	XMT	1	FOCUS COIL AIRFLOW FAILURE
76	MM	ED	XMT	2	XMTR OIL OVER TEMP
77	MM	ED	XMT	1	PRF LIMIT
78	MM	ED	XMT	2	XMTR OIL LEVEL LOW
79	N/A	N/A	N/A		SPARE
80	MM	ED	XMT	1	KLYSTRON OVER CURRENT
81	MM	ED	XMT	1	KLYSTRON FILAMENT CURRENT FAIL
82	MM	ED	XMT	1	KLYSTRON VACUUM CURRENT FAIL
83	MM	ED	XMT	2	KLYSTRON AIR OVER TEMP
84	MM	ED	XMT	2	KLYSTRON AIR FLOW FAILURE
85	MM	ED	XMT	1	XMTR PEAK POWER LOW
86	MM	ED	XMT	1	XMTR PEAK POWER HIGH
87	MM	ED	XMT	1	XMTR POWER METER ZERO OUT OF LIMIT
88	MM	ED	XMT	1	XMTR POWER BITE FAIL
89 - 92	N/A	N/A	N/A		SPARE
93	MR	ED	XMT	2	XMTR MODULATOR SWITCH REQUIRES MAINT
94	MR	ED	XMT	2	XMTR POST CHARGE REG REQUIRES MAINT
95	MM	ED	XMT	2	WAVEGUIDE HUMIDITY/PRESSURE FAULT
96	IN	ED	XMT	3	XMTR HV SWITCH FAILURE
97	MM	ED	XMT	1	XMTR RECYCLING
98	IN	ED	XMT	2	XMTR INOPERATIVE
99 - 109	N/A	N/A	N/A		SPARE
110	MM	ED	XMT	1	XMTR/DAU INTERFACE FAILURE
111	IN	ED	UTL	1	RDA UPS ON BATTERY

CODE	STATE	ALARM TYPE	DEVICE	SAMPLE	ALARM MESSAGE
112	MM	ED	UTL	1	RDA UPS OVERLOAD
113	MR	ED	UTL	1	RDA UPS VOLTAGE REGULATION
114	MM	ED	UTL	1	RDA UPS SHUTDOWN
115	MR	ED	UTL	1	RDA UPS BATTERY FAIL
116	MM	ED	UTL	1	RDA UPS DIAGNOSTICS FAIL
117	MR	ED	UTL	1	RDA UPS LOW BATTERY
118	MM	ED	UTL	1	POWER ADMINISTRATOR OVERLOAD
119	MM	ED	UTL	1	POWER ADMINISTRATOR FAILURE
120	MM	ED	UTL	2	AC UNIT#1 COMPRESSOR SHUTOFF
121	MM	ED	UTL	2	AC UNIT#2 COMPRESSOR SHUTOFF
122	MR	ED	UTL	2	GENERATOR MAINTENANCE REQUIRED
123	MR	ED	UTL	1	RDA UPS DETECTS A SITE WIRING FAULT
124	MM	ED	UTL	2	GEN STARTING BATTERY VOLTAGE LOW
125	MM	ED	UTL	2	GENERATOR ENGINE MALFUNCTION
126	MM	ED	UTL	2	TPS IS OFF-LINE
127	N/A	N/A	N/A		SPARE
128	MM	ED	UTL	2	GENERATOR AUTO/RUN/OFF SWITCH NOT AUTO
129	MM	ED	UTL	1	GENERATOR EXERCISE FAILURE
130	MM	ED	UTL	2	AIRCRAFT HAZARD LIGHTING FAILURE
131 - 132	N/A	N/A	N/A		SPARE
133	MR	ED	UTL	2	FIRE/SMOKE IN EQUIP SHELTER
134 - 135	N/A	N/A	N/A		SPARE
136	MR	ED	UTL	2	FIRE/SMOKE IN GENERATOR SHELTER
137	N/A	N/A	N/A		SPARE
138	N/A	N/A	N/A		SPARE
139	N/A	N/A	N/A		SPARE
140 - 143	N/A	N/A	N/A		SPARE
144	MR	ED	UTL	2	UNAUTHORIZED SITE ENTRY
145	MR	ED	UTL	2	SECURITY SYSTEM EQUIPMENT FAILURE
146	MR	ED	UTL	2	SECURITY SYSTEM DISABLED
147	N/A	N/A	N/A		SPARE
148	N/A	N/A	N/A		SPARE
149	N/A	N/A	N/A		SPARE
150	N/A	N/A	N/A		SPARE
151	IN	ED	UTL	1	RADOME ACCESS HATCH OPEN
152	MR	ED	UTL	2	AC UNIT#1 FILTER DIRTY
153	MR	ED	UTL	2	AC UNIT#2 FILTER DIRTY
154	MR	ED	UTL	2	XMTR FILTER DIRTY
155 - 170	N/A	N/A	N/A		SPARE
171	MM	ED	UTL	2	EQUIPMENT SHELTER TEMP EXTREME
172	MM	ED	UTL	2	AC UNIT#1 DISCHARGE TEMP EXTREME
173	MM	ED	UTL	2	XMTR EXHAUST AIR TEMP EXTREME

CODE	STATE	ALARM TYPE	DEVICE	SAMPLE	ALARM MESSAGE
174	MR	ED	UTL	2	RADOME AIR TEMP EXTREME
175	MM	ED	UTL	2	GENERATOR SHELTER TEMP EXTREME
176	MR	ED	UTL	2	GENERATOR FUEL STORAGE TANK LEVEL LOW
177	MR	ED	UTL	1	COMMANDED POWER SWITCH FAILED
178	SEC	OC	UTL		RECOMMEND SWITCH TO UTILITY POWER
179 - 183	N/A	N/A	N/A		SPARE
184	MM	ED	UTL	2	AC UNIT#2 DISCHARGE TEMP EXTREME
185	N/A	N/A	N/A		SPARE
186	IN	ED	CTR	1	RDAC FAILED - RCP REBOOT INITIATED
187	IN	ED	CTR	1	WDOG FAILED - RCP REBOOT INITIATED
188	MR	ED	CTR	1	NMSC FAILED - SNMP TRAFFIC NOT MONITORED
189	MM	ED	CTR	1	RPGC FAILED - RPGC RESTART INITIATED
190	MR	ED	CTR	1	HCIS FAILED - HCIS RESTART INITIATED
191	MR	ED	CTR	1	RMSS FAILED - RMSS RESTART INITIATED
192	MM	ED	CTR	1	DAUC FAILED - DAUC RESTART INITIATED
193	N/A	N/A	N/A		SPARE
194	MM	ED	CTR	1	VCPC FAILED - VCPC RESTART INITIATED
195	MM	ED	CTR	1	DSPC FAILED - DSPC RESTART INITIATED
196	MR	ED	CTR	1	CHNS FAILED - CHNS RESTART INITIATED
197	MR	ED	CTR	1	RSTS FAILED - RSTS RESTART INITIATED
198	IN	ED	CTR	1	DAUC BOUNCING - RCP REBOOT INITIATED
199	IN	ED	CTR	1	RPGC BOUNCING - RCP REBOOT INITIATED
200	IN	ED	CTR	1	VCPC BOUNCING - RCP REBOOT INITIATED
201	IN	ED	CTR	1	DSPC BOUNCING - RCP REBOOT INITIATED
202-248					SPARE
249	IN	ED	CTR	2	DAU UART FAILURE
250	MM	ED	CTR	2	DAU +28V POWER SUPPLY FAIL
251	MM	ED	CTR	2	DAU +15V POWER SUPPLY FAIL
252	MM	ED	CTR	2	DAU +5V POWER SUPPLY FAIL
253 - 264	N/A	N/A	N/A		SPARE
265	MM	ED	CTR	2	DAU -15V POWER SUPPLY FAIL
266	MM	ED	CTR	2	DAU A/D LOW LEVEL OUT OF TOLERANCE
267	MM	ED	CTR	2	DAU A/D MID LEVEL OUT OF TOLERANCE
268	MM	ED	CTR	2	DAU A/D HIGH LEVEL OUT OF TOLERANCE
269 - 299	N/A	N/A	N/A		SPARE
300	IN	ED	PED	2	ELEVATION AMPLIFIER INHIBIT
301	MM	ED	PED	2	ELEVATION AMPLIFIER CURRENT LIMIT
302	MM	ED	PED	2	ELEVATION AMPLIFIER OVERTEMP
303	MM	ED	PED	2	PEDESTAL +150V OVER VOLTAGE

CODE	STATE	ALARM TYPE	DEVICE	SAMPLE	ALARM MESSAGE
304	MM	ED	PED	2	PEDESTAL +150V UNDER VOLTAGE
305	MM	ED	PED	2	ELEVATION MOTOR OVERTEMP
306	IN	ED	PED	2	ELEVATION STOW PIN ENGAGED
307	MM	ED	PED	2	ELEVATION PCU DATA PARITY FAULT
308	MM	ED	PED	2	ELEVATION IN DEAD LIMIT
309	N/A	N/A	N/A		SPARE
310	MM	ED	PED	2	ELEVATION + NORMAL LIMIT
311	MM	ED	PED	2	ELEVATION - NORMAL LIMIT
312	N/A	N/A	N/A		SPARE
313	MM	ED	PED	2	ELEVATION ENCODER LIGHT FAILURE
314	MM	ED	PED	2	ELEVATION GEARBOX OIL LEVEL LOW
315	IN	ED	PED	2	AZIMUTH AMPLIFIER INHIBIT
316	MM	ED	PED	2	AZIMUTH AMPLIFIER CURRENT LIMIT
317	MM	ED	PED	2	AZIMUTH AMPLIFIER OVERTEMP
318	N/A	N/A	N/A		SPARE
319	N/A	N/A	N/A		SPARE
320	MM	ED	PED	2	AZIMUTH MOTOR OVERTEMP
321	IN	ED	PED	2	AZIMUTH STOW PIN ENGAGED
322	MM	ED	PED	2	AZIMUTH PCU DATA PARITY FAULT
323	N/A	N/A	N/A		SPARE
324	MM	ED	PED	2	AZIMUTH ENCODER LIGHT FAILURE
325	MM	ED	PED	2	AZIMUTH GEARBOX OIL LEVEL LOW
326	MM	ED	PED	2	BULL GEAR OIL LEVEL LOW
327	MM	ED	PED	2	ENCODER +5V POWER SUPPLY FAIL
328	IN	ED	PED	2	ELEVATION HANDWHEEL ENGAGED
329	IN	ED	PED	2	AZIMUTH HANDWHEEL ENGAGED
330	MM	ED	PED	2	PEDESTAL +15V POWER SUPPLY 1 FAIL
331	MM	ED	PED	2	PEDESTAL -15V POWER SUPPLY 1 FAIL
332	MM	ED	PED	2	PEDESTAL +5V POWER SUPPLY 1 FAIL
333	MM	ED	PED	2	PEDESTAL +28V POWER SUPPLY 2 FAIL
334	MM	ED	PED	2	AZIMUTH AMP POWER SUPPLY FAIL
335	MM	ED	PED	2	ELEVATION AMP POWER SUPPLY FAIL
336	IN	ED	PED	1	PEDESTAL DYNAMIC FAULT
337	IN	ED	PED	1	PEDESTAL SAFE SWITCH OPEN
338	N/A	N/A	N/A		SPARE
339	IN	ED	PED	1	PEDESTAL UNABLE TO PARK
340	SEC	OC	PED		PEDESTAL INITIALIZATION ERROR
341	IN	ED	PED	3	PED SERVO SWITCH FAILURE
342 - 358	N/A	N/A	N/A		SPARE
359	MM	ED	RCV	1	RECEIVER PROTECT RESPONSE FAILED
360	MM	ED	RCV	1	RF GEN FREQ SELECT OSCILLATOR FAIL
361	MM	ED	RCV	1	RF GEN RF/STALO FAIL
362	MM	ED	RCV	1	RF GEN PHASE SHIFTED COHO FAIL
363	MM	ED	RCV	1	IFD COHO INPUT MISSING
364	MM	ED	RCV	2	RCVR +5V POWER SUPPLY 5 FAIL
365	MM	ED	RCV	2	RCVR +/-18V POWER SUPPLY 1 FAIL

CODE	STATE	ALARM TYPE	DEVICE	SAMPLE	ALARM MESSAGE
366	MM	ED	RCV	2	RCVR -9V POWER SUPPLY 4 FAIL
367	MM	ED	RCV	2	RCVR +9V POWER SUPPLY 6 FAIL
368	MM	ED	RCV	2	RCVR +5V POWER SUPPLY 9 FAIL
369	MM	ED	RCV	2	COHO/CLOCK FAILURE
370	INOP	ED	RCV	1	SIGNAL PROCESSOR TO IFD COMMUNICATION FAILURE
371	MM	ED	RCV	1	MISSING BURST PULSE SIGNAL
372 - 382	N/A	N/A	N/A		SPARE
383	N/A	N/A	N/A		SPARE
384	MR	ED	SIG	1	RVP TRIGGER SEQUENCE TRUNCATED
385	MR	ED	SIG	1	RVP TRIGGER PATTERN ALTERED
386	MR	ED	SIG	1	RVP TRIGGER PERIOD ALTERED
387	MR	ED	SIG	1	SIGNAL PROCESSOR TRIGGER ERROR
388	SEC	FO	SIG		SIGNAL PROCESSOR SELF CHECK FAILED
389	MR	ED	SIG	1	IFD TEST SWITCH POSITION ERROR
390					SPARE
391	SEC	OC	COM		RPG LOOP TEST TIMED OUT
392	SEC	OC	COM		RPG LOOP TEST VERIFICATION ERROR
393	SEC	OC	CTR		INVALID REMOTE VCP RECEIVED
394	SEC	OC	CTR		REMOTE VCP NOT DOWNLOADED
395	SEC	OC	CTR		INVALID RPG COMMAND RECEIVED
396	SEC	FO	SIG		RADIAL DATA LOST
397	N/A	N/A	N/A		SPARE
398	SEC	OC	CTR		STANDBY FORCED BY INOP ALARM
399 - 400	N/A	N/A	N/A		SPARE
401 - 420	N/A	N/A	N/A		RESERVED FOR INTERNAL RDA USE
421 - 429	N/A	N/A	N/A		SPARE
430	MR	ED	CTR	1	BYPASS MAP FILE READ FAILED
431	MR	ED	CTR		BYPASS MAP FILE WRITE FAILED
432	N/A	N/A	N/A		SPARE
433	N/A	N/A	N/A		SPARE
434	MR	ED	CTR	1	CLUTTER MAP FILE READ FAILED
435	MR	ED	CTR		CLUTTER MAP FILE WRITE FAILED
436	MR	ED	CTR	1	CLUTTER CENSOR FILE READ FAILED
437	MR	ED	CTR		CLUTTER CENSOR FILE WRITE FAILED
438	MR	ED	CTR	1	STATE FILE READ FAILED
439	MR	ED	CTR		STATE FILE WRITE FAILED
440	MR	ED	CTR	1	CURRENT ADAPTATION FILE READ FAILED
441	MR	ED	CTR		CURRENT ADAPTATION FILE WRITE FAILED
442	MR	ED	CTR	1	BASELINE FILE READ FAILED
443	N/A	N/A	N/A		SPARE
444	SEC	OC	CTR		CLUTTER MAP FILE GENERATION ERROR
445	N/A	N/A	N/A		SPARE

CODE	STATE	ALARM TYPE	DEVICE	SAMPLE	ALARM MESSAGE
446	MR	ED	CTR	1	TOO MANY LOG FILES - PLEASE REMOVE SOME
447	MR	ED	CTR	1	DISK I/O ERROR
448	MM	ED	CTR	1	DAU COMMUNICATION ERROR
449	MR	ED	CTR		REMOTE VCP FILE WRITE FAILED
450	MR	ED	CTR		REMOTE VCP FILE READ FAILED
451	N/A	N/A	N/A		SPARE
452	MM	ED	COM	1	RPG LINK INITIALIZATION ERROR
453	N/A	N/A	N/A		SPARE
454	N/A	N/A	N/A		SPARE
455	N/A	N/A	N/A		SPARE
456 - 457	N/A	N/A	N/A		SPARE
458	MM	ED	PED	1	PEDESTAL SELF TEST 1 ERROR
459	MM	ED	PED	1	PEDESTAL SELF TEST 2 ERROR
460	SEC	FO	CTR		HCI COMMUNICATION ERROR
461	MM	ED	PED	1	PEDESTAL BIT RESPONSE ERROR
462	IN	ED	SIG	1	SIGNAL PROCESSOR COMMUNICATION ERROR
463	MM	ED	PED		PEDESTAL COMMUNICATION ERROR
464	MM	ED	CTR	1	REDUNDANT CHANNEL COMM ERROR
465	IN	ED	CTR	1	MULTIPLE DAU COMM ERROR - RDA FORCED TO STBY
466	IN	ED	SIG	1	MULTIPLE SIGNAL PROCESSOR COMM ERROR - RDA FORCED TO STBY
467	IN	ED	PED	1	MULTIPLE PED COMM ERROR - RDA FORCED TO STBY
468	SEC	OC	CTR		DAU INITIALIZATION ERROR
469	IN	ED	CTR	1	MULT DAU CMD TOUTS - RDA FORCED TO STBY
470	MM	ED	RCV	1	NOISE LEVEL DEGRADED
471	MM	ED	RCV	1	NOISE TEMP DEGRADED
472 - 480	N/A	N/A	N/A		SPARE
481	MM	ED	RCV	1	GAIN CALIBRATION CONSTANT DEGRADED
482	MM	ED	RCV	1	CABINET-FRONT END MISMATCH
483	MM	ED	RCV	1	VELOCITY/WIDTH CHECK DEGRADED
484	MR	ED	RCV	1	VELOCITY/WIDTH CHECK-MAINT REQUIRED
485	MM	ED	RCV	1	DYNAMIC RANGE DEGRADED
486	MM	ED	RCV	1	CLUTTER REJECTION DEGRADED
487	MR	ED	RCV	1	CLUTTER REJECTION - MAINT REQUIRED
488 - 520	N/A	N/A	N/A		SPARE
521	MR	ED	RCV	1	NOISE TEMP - MAINT REQUIRED
522	MM	ED	RCV	1	LINEARITY SLOPE DEGRADED
523	MM	ED	RCV	1	LINEARITY TEST SIGNAL DEGRADED
524	MR	ED	RCV	1	LINEARITY TEST SIGNAL - MAINT REQUIRED

CODE	STATE	ALARM TYPE	DEVICE	SAMPLE	ALARM MESSAGE
525 - 532	N/A	N/A	N/A		SPARE
533	MM	ED	RCV	1	KLYSTRON OUT TEST SIGNAL DEGRADED
534 - 541	N/A	N/A	N/A		SPARE
542	N/A	N/A	N/A		SPARE
543	SEC	OC	CTR		RPG COMMAND REJECTED
544	SEC	OC	CTR		RMS COMMAND REJECTED
545	SEC	OC	CTR		RDA COMMAND REJECTED
546 - 547	N/A	N/A	N/A		SPARE
548	SEC	OC	CTR		RMS CONTROL COMMAND REJECTED INVALID COMMAND
549	SEC	OC	CTR		RMS CONTROL COMMAND REJECTED INVALID PARAMETER
550 - 551	N/A	N/A	N/A		SPARE
552	SEC	OC	CTR	1	NONCONTROLLING CHANNEL FORCED TO STANDBY
553	SEC	OC	CTR		CHANNEL ALREADY CONTROLLING - CMD REJECTED
554	SEC	OC	CTR		CHANNEL ALREADY NON-CONTROLLING - CMD REJECTED
555	SEC	OC	CTR		CHANNEL CONTROL FAILURE - WAVEGUIDE SWITCH MISMATCH
556	SEC	OC	CTR		CHANNEL SWITCH TIMEOUT
557	SEC	OC	CTR		CHANNEL SWITCH FAILED
558	SEC	OC	CTR		CHANNEL SWITCH REJECTED
559	MR	ED	CTR	1	CHANNEL 1 LOST DAU COMMS
560	MR	ED	CTR	1	CHANNEL 2 LOST DAU COMMS
561	SEC	OC	CTR		INVALID CONTROL FOR CHANNEL SWITCH
562	SEC	OC	CTR		INVALID STATUS FOR CHANNEL SWITCH
563	SEC	OC	CTR		INVALID CHANNEL SWITCH -- CHANNEL IN MAINTENANCE
564 - 590	N/A	N/A	N/A		SPARE
591	INOP	ED	CTR	1	MULTIPLE PROCESS FAILURE - FORCED TO STANDBY INOP
592	SEC	OC	CTR		SYSTEM STATUS MONITOR INITIALIZATION ERROR - REBOOT INITIATED
593	SEC	OC	CTR		SYSTEM STATE TRANSITION TIMEOUT
594 - 616	N/A	N/A	N/A		SPARE
617	N/A	N/A	N/A		SPARE
618 - 650	N/A	N/A	N/A		SPARE
651 -	N/A	N/A	N/A		SPARE

CODE	STATE	ALARM TYPE	DEVICE	SAMPLE	ALARM MESSAGE
678					
679	SEC	OC	CTR		INVALID CENSOR ZONE MESSAGE RECEIVED
680 - 689	N/A	N/A	N/A		SPARE
690	N/A	N/A	N/A		SPARE
691	N/A	N/A	N/A		SPARE
692- 698	N/A	N/A	N/A		SPARE
699	SEC	OC	CTR		CUT TIMEOUT-RESTART VCP INITIATED
700	SEC	OC	CTR		INIT SEQ TIMEOUT-REBOOT INITIATED
701	SEC	OC	CTR		PERF CHECK TIMEOUT-REBOOT INITIATED
702- 800	N/A	N/A	N/A		SPARE

Table V Performance/Maintenance Data (Message Type 3)

Note: IEEE 754 format shall be used for all floating point numbers

DESCRIPTION	HALF WORD	RANGE	FORMAT	UNITS	LSB	VALUES	REMARKS
Communications							
Spare	1	-	-	-	-	-	0=Spare
Loop back test status	2	0 to 3	Integer	-	1	0=Pass; 1=Fail, 2=Timeout, 3=Not Tested	0=Pass; 1=Fail; 2=Timeout; 3=Not Tested (No)
T1 Output Frames	3 - 4	0 to $2^{32}-1$	Integer*4	octets	1		The number of octets received on interface, including frame octets
T1 Input Frames	5 - 6	0 to $2^{32}-1$	Integer*4	octets	1		The number of octets sent on interface, including frame octets
Router Memory Used	7 - 8	0 to $2^{32}-1$	Integer*4	bytes	1		Bytes currently in use by applications on managed device
Router Memory Free	9 - 10	0 to $2^{32}-1$	Integer*4	bytes	1		Bytes currently free on managed device
Router memory utilization	11	0 to 100	Integer	percent	1		
Spare	12	-	-	-	-	0=Spare	0 = Spare
CSU loss of signal	13 - 14	0 to $2^{32}-1$	Integer*4	-	1		Number of times Loss of Signal event detected
CSU loss of frames	15 - 16	0 to $2^{32}-1$	Integer*4	-	1		Number of times Loss of Frames event detected
CSU yellow alarms	17 - 18	0 to $2^{32}-1$	Integer*4	-	1		Number of times RAI (yellow) alarm received.
CSU blue alarms	19 - 20	0 to $2^{32}-1$	Integer*4	-	1		Number of times AIS (blue) alarm received.
CSU 24hr errored seconds	21 - 22	0 to $2^{32}-1$	Integer*4	-	1		Number of errored seconds in previous 15 minute interval.
CSU 24hr severely errored seconds	23 - 24	0 to $2^{32}-1$	Integer*4	-	1		Number of severely errored seconds in previous 15 minute

DESCRIPTION	HALF WORD	RANGE	FORMAT	UNITS	LSB	VALUES	REMARKS
							interval.
CSU 24hr severely errored framing seconds	25 - 26	0 to $2^{32}-1$	Integer*4	-	1		Number of severely errored framing seconds in previous 15 minute interval.
CSU 24hr unavailable seconds	27 - 28	0 to $2^{32}-1$	Integer*4	-	1		Number of unavailable seconds in previous 15 minute interval.
CSU 24hr controlled slip seconds	29 - 30	0 to $2^{32}-1$	Integer*4	-	1		Number of controlled slip seconds in previous 15 minute interval.
CSU 24hr path coding violations	31 - 32	0 to $2^{32}-1$	Integer*4	-	1		Number of path coding violations in previous 15 minute interval.
CSU 24hr line errored seconds	33 - 34	0 to $2^{32}-1$	Integer*4	-	1		Number of line errored seconds in previous 15 minute interval.
CSU 24hr bursty errored seconds	35 - 36	0 to $2^{32}-1$	Integer*4	-	1		Number of bursty errored seconds in previous 15 minute interval.
CSU 24hr degraded minutes	37 - 38	0 to $2^{32}-1$	Integer*4	-	1		Number of degraded minutes in previous 15 minute interval.
LAN switch memory used	39 - 40	0 to $2^{32}-1$	Integer*4	bytes	1		Bytes currently in use by applications on this device
LAN switch memory free	41 - 42	0 to $2^{32}-1$	Integer*4	bytes	1		Bytes currently free on this device
LAN switch memory utilization	43	0 to 100	Integer	percent	1		
Spare	44	-	-	-	-		0 = Spare
NTP rejected packets	45 - 46	0 to $2^{32}-1$	Integer*4	-	1		Number of packets rejected by NTP application layer
NTP estimated time error	47 - 48	$-(2^{31})$ to $+(2^{31}-1)$	SInteger*4	usec	1		Current estimated time error of the time server
GPS satellites	49 - 50	$-(2^{31})$ to $+(2^{31}-1)$	SInteger*4	-	1		Current number of GPS satellites

DESCRIPTION	HALF WORD	RANGE	FORMAT	UNITS	LSB	VALUES	REMARKS
							used in position and time fix calculation
GPS max signal strength	51 - 52	$-(2^{31})$ to $+(2^{31}-1)$	SInteger*4	dB	1		Strongest signal strength of all tracking satellites as seen by receiver
IPC Status	53	0 to 2	Integer	-	1	0=OK, 1=Fail, 2=N/A	Status of the communications between channels on a redundant system. N/A on a Single channel system.
Commanded Channel Control	54	0 to 2	Integer	-	1	0=N/A, 1=Channel 1, 2=Channel 2	The last channel commanded to controlling
DAU Test 0	55	0 to 255	Integer	-	1		10 = Normal 7-11 = Good all other values=fault
DAU Test 1	56	0 to 255	Integer	-	1		127 = Normal 118-136 = Good all other values=fault
DAU Test 2	57	0 to 255	Integer	-	1		245 = Normal 221-252 = Good all other values=fault
Spare	58 - 98	-	-	-	-	0=Spare	0 = Spare
Power							
UPS Battery Status	99 - 100	1 to 3	SInteger*4	-	1	1=Unknown, 2=OK, 3=Low	
UPS time on battery	101 - 102	0 to $2^{32}-1$	Integer*4	seconds *100	1		
UPS battery temperature	103 - 104	0 to $2^{32}-1$	Integer*4	Deg C	1		
UPS output voltage	105 - 106	0 to $2^{32}-1$	Integer*4	V	1		
UPS output frequency	107 - 108	0 to $2^{32}-1$	Integer*4	Hz	1		
UPS output current	109 - 110	0 to $2^{32}-1$	Integer*4	Amps*10	1		
Power Administrator Load	111 - 112	0 to $2^{32}-1$	Integer*4	Amps*10	1		
Spare	113 -	-	-	-	-		0 = Spare

DESCRIPTION	HALF WORD	RANGE	FORMAT	UNITS	LSB	VALUES	REMARKS
	136						
<u>Transmitter</u>							
+5 VDC PS	137	0 to 1	Integer	-	1	1=Fail, 0=OK	
+15 VDC PS	138	0 to 1	Integer	-	1	1=Fail, 0=OK	
+28 VDC PS	139	0 to 1	Integer	-	1	1=Fail, 0=OK	
-15 VDC PS	140	0 to 1	Integer	-	1	1=Fail, 0=OK	
+45 VDC PS	141	0 to 1	Integer	-	1	1=Fail, 0=OK	
Filament PS Voltage	142	0 to 1	Integer	-	1	1=Fail, 0=OK	
Vacuum Pump PS Voltage	143	0 to 1	Integer	-	1	1=Fail, 0=OK	
Focus Coil PS Voltage	144	0 to 1	Integer	-	1	1=Fail, 0=OK	
Filament PS	145	0 to 1	Integer	-	1	1=Off, 0=On	
Klystron Warmup	146	0 to 1	Integer	-	1	1=Preheat, 0=Normal	
Transmitter Available	147	0 to 1	Integer	-	1	1=No, 0=Yes	
WG Switch Position	148	0 to 1	Integer	-	1	1=Dummy Load, 0=Antenna	
WG/PFN Transfer Interlock	149	0 to 1	Integer	-	1	1=Open, 0=OK	
Maintenance Mode	150	0 to 1	Integer	-	1	1=Yes, 0= No	
Maintenance Required	151	0 to 1	Integer	-	1	1=Required, 0=No	
PFN Switch Position	152	0 to 1	Integer	-	1	1=Long Pulse, 0=Short Pulse	
Modulator Overload	153	0 to 1	Integer	-	1	1=Fail, 0=OK	
Modulator Inv Current	154	0 to 1	Integer	-	1	1=Fail, 0=OK	
Modulator Switch Fail	155	0 to 1	Integer	-	1	1=Fail, 0=OK	
Main Power Voltage	156	0 to 1	Integer	-	1	1=Over, 0=OK	
Charging System Fail	157	0 to 1	Integer	-	1	1=Fail, 0=OK	
Inverse Diode Current	158	0 to 1	Integer	-	1	1=Fail, 0=OK	
Trigger Amplifier	159	0 to 1	Integer	-	1	1=Fail,	

DESCRIPTION	HALF WORD	RANGE	FORMAT	UNITS	LSB	VALUES	REMARKS
						0=OK	
Circulator Temperature	160	0 to 1	Integer	-	1	1=Fail, 0=OK	
Spectrum Filter Pressure	161	0 to 1	Integer	-	1	1=Fail, 0=OK	
WG ARC/VSWR	162	0 to 1	Integer	-	1	1=Fail, 0=OK	
Cabinet Interlock	163	0 to 1	Integer	-	1	1=Open, 0=OK	
Cabinet Air Temperature	164	0 to 1	Integer	-	1	1=Fail, 0=OK	
Cabinet Airflow	165	0 to 1	Integer	-	1	1=Fail, 0=OK	
Klystron Current	166	0 to 1	Integer	-	1	1=Over, 0=OK	
Klystron Filament Current	167	0 to 1	Integer	-	1	1=Fail, 0=OK	
Klystron Vacion Current	168	0 to 1	Integer	-	1	1=Fail, 0=OK	
Klystron Air Temperature	169	0 to 1	Integer	-	1	1=Fail, 0=OK	
Klystron Airflow	170	0 to 1	Integer	-	1	1=Fail, 0=OK	
Modulator Switch Maintenance	171	0 to 1	Integer	-	1	1=Required, 0=OK	
Post Charge Regulator Maintenance	172	0 to 1	Integer	-	1	1=Maintenance, 0=OK	
WG Pressure/Humidity	173	0 to 1	Integer	-	1	1=Fail, 0=OK	
Transmitter Overvoltage	174	0 to 1	Integer	-	1	1=Over, 0=OK	
Transmitter Overcurrent	175	0 to 1	Integer	-	1	1=Over, 0=OK	
Focus Coil Current	176	0 to 1	Integer	-	1	1=Fail, 0=OK	
Focus Coil Airflow	177	0 to 1	Integer	-	1	1=Fail, 0=OK	
Oil Temperature	178	0 to 1	Integer	-	1	1=Fail, 0=OK	
PRF Limit	179	0 to 1	Integer	-	1	1=Fail, 0=OK	
Transmitter Oil Level	180	0 to 1	Integer	-	1	1=Fail, 0=OK	
Transmitter Battery Charging	181	0 to 1	Integer	-	1	0=Yes, 1=No	
High Voltage (HV) Status	182	0 to 1	Integer	-	1	0=On, 1=Off	

DESCRIPTION	HALF WORD	RANGE	FORMAT	UNITS	LSB	VALUES	REMARKS
Transmitter Recycling Summary	183	0 to 1	Integer	-	1	1=Recycling, 0=Normal	
Transmitter Inoperable	184	0 to 1	Integer	-	1	1=INOP, 0=OK	
Transmitter Air Filter	185	0 to 1	Integer	-	1	0=Dirty, 1=OK	
Zero Test Bit 0	186	0 to 1	Integer	-	1	1=Fail, 0=OK	
Zero Test Bit 1	187	0 to 1	Integer	-	1	1=Fail, 0=OK	
Zero Test Bit 2	188	0 to 1	Integer	-	1	1=Fail, 0=OK	
Zero Test Bit 3	189	0 to 1	Integer	-	1	1=Fail, 0=OK	
Zero Test Bit 4	190	0 to 1	Integer	-	1	1=Fail, 0=OK	
Zero Test Bit 5	191	0 to 1	Integer	-	1	1=Fail, 0=OK	
Zero Test Bit 6	192	0 to 1	Integer	-	1	1=Fail, 0=OK	
Zero Test Bit 7	193	0 to 1	Integer	-	1	1=Fail, 0=OK	
One Test Bit 0	194	0 to 1	Integer	-	1	1=OK, 0=Fail	
One Test Bit 1	195	0 to 1	Integer	-	1	1=OK, 0=Fail	
One Test Bit 2	196	0 to 1	Integer	-	1	1=OK, 0=Fail	
One Test Bit 3	197	0 to 1	Integer	-	1	1=OK, 0=Fail	
One Test Bit 4	198	0 to 1	Integer	-	1	1=OK, 0=Fail	
One Test Bit 5	199	0 to 1	Integer	-	1	1=OK, 0=Fail	
One Test Bit 6	200	0 to 1	Integer	-	1	1=OK, 0=Fail	
One Test Bit 7	201	0 to 1	Integer	-	1	1=OK, 0=Fail	
XMTR/DAU Interface	202	0 to 1	Integer	-	1	1=OK, 0=Fail	
Transmitter Summary Status	203	0 to 4	Integer	-	1	0=Ready, 1=Alarm, 2=Maintenance, 3=Recycle, 4=Preheat	
Spare	204	-	-	-	-	-	
Transmitter RF	205 -	0 to 10	Float	mW	.0001	NULL	

DESCRIPTION	HALF WORD	RANGE	FORMAT	UNITS	LSB	VALUES	REMARKS
Power (Sensor)	206						
Spare	207 - 208	-	-	-	-	-	0 = Spare
XMTR Peak Power	209 - 210	0 to 999.9	Float	KW	0.1	NULL	
Spare	211 - 212	-	-	-	-	-	0 = Spare
XMTR RF Avg Power	213 - 214	0 to 9999.9	Float	Watts	0.1	NULL	
XMTR Power Meter Zero	215	0 to 255	Integer	-	1	NULL	
Spare	216	-	-	-	-	0=Spare	
XMTR Recycle Count	217 - 218	0 to 999,999	Integer*4	-	1	NULL	
Spares	219 - 228	-	-	-	-	0=Spare	0 = Spare
<u>Tower/Utilities</u>							
AC Unit #1 Compressor Shut off	229	0 to 1	Integer	-	1	1=Shutoff, 0=OK	
AC Unit #2 Compressor Shut off	230	0 to 1	Integer	-	1	1=Shutoff, 0=OK	
Generator Maintenance Required	231	0 to 1	Integer	-	1	0=Yes, 1=No	
Generator Battery Voltage	232	0 to 1	Integer	-	1	1= OK, 0=Low	
Generator Engine	233	0 to 1	Integer	-	1	1=OK, 0=Fail	
Generator Volt/Frequency	234	0 to 1	Integer	-	1	1=Available, 0=Not available	
Power Source	235	0 to 1	Integer	-	1	0=Utility Power, 1=Generator Power	
Transitional Power Source (TPS)	236	0 to 1	Integer	-	1	1=Off, 0=OK	
Generator Auto/Run/Off Switch	237	0 to 1	Integer	-	1	1=Auto, 0=Manual	
Aircraft Hazard Lighting	238	0 to 1	Integer	-	1	1=OK, 0=Fail	
DAU UART	239	0 to 1	Integer	-	1	1=Fail, 0=OK	
Spares	240 - 250	-	-	-	1	0=Spare	

DESCRIPTION	HALF WORD	RANGE	FORMAT	UNITS	LSB	VALUES	REMARKS
<u>Equipment Shelter</u>							
Equipment Shelter Fire/Smoke	251	0 to 1	Integer	-	1	0=OK, 1=Fire	
Generator Shelter Fire/Smoke	252	0 to 1	Integer	-	1	1=OK, 0=Fire	
Utility Voltage/Frequency	253	0 to 1	Integer	-	1	1=Available, 0=Not available	
Site Security Alarm	254	0 to 1	Integer	-	1	0=Alarm, 1=OK	
Security Equipment	255	0 to 1	Integer	-	1	0=Fail, 1=OK	
Security System	256	0 to 1	Integer	-	1	0=Disabled, 1=OK	
Receiver Connected to Antenna	257	0 to 2	Integer	-	1	1=Not Connected, 0=Connected, 2=N/A	N/A on a single channel system.
Radome Hatch	258	0 to 1	Integer	-	1	0=Open, 1=Closed	
AC Unit #1 Filter Dirty	259	0 to 1	Integer	-	1	0=Dirty, 1=OK	
AC Unit #2 Filter Dirty	260	0 to 1	Integer	-	-	0=Dirty, 1=OK	
Equipment Shelter Temperature	261 - 262	0.00 to +50.00	Float	Deg C	0.01	NULL	
Outside Ambient Temperature	263 - 264	-50.00 to +50.00	Float	Deg C	0.01	NULL	
Transmitter Leaving Air Temp	265 - 266	-10.00 to +60.00	Float	Deg C	0.01	NULL	
AC Unit #1 Discharge Air Temp	267 - 268	0.00 to +50.00	Float	Deg C	0.01	NULL	
Generator Shelter Temperature	269 - 270	0.00 to +50.00	Float	Deg C	0.01	NULL	
Radome Air Temperature	271 - 272	-50.00 to +50.00	Float	Deg C	0.01	NULL	
AC Unit #2 Discharge Air Temp	273 - 274	0.00 to +50.00	Float	Deg C	0.01	NULL	
DAU +15v PS	275 - 276	0.0 to 20.0	Float	Volts	0.1	NULL	
DAU -15v PS	277 - 278	-20.0 to 0.0	Float	Volts	0.1	NULL	
DAU +28v PS	279 - 280	0.0 to 37.4	Float	Volts	0.1	NULL	
DAU +5v PS	281 - 282	0.0 to 6.64	Float	Volts	0.1	NULL	
Converted	283	0 to 100	Integer	%	1		

DESCRIPTION	HALF WORD	RANGE	FORMAT	UNITS	LSB	VALUES	REMARKS
Generator Fuel Level							
Spares	284 - 290	-	-	-	-	0=Spares	0=Spares
<u>Antenna/Pedestal</u>							
Pedestal +28v PS	291 - 292	0 to 40.8	Float	Volts	0.01	NULL	
Pedestal +15v PS	293 - 294	0 to 20.0	Float	Volts	0.01	NULL	
Encoder +5v PS	295 - 296	0 to 18.36	Float	Volts	0.01	NULL	
Pedestal +5v PS	297 - 298	0 to 6.64	Float	Volts	0.01	NULL	
Pedestal -15v PS	299 - 300	-20.0 to 0.0	Float	Volts	0.01	NULL	
+150V Overvoltage	301	0 to 1	Integer	-	1	0=OK, 1=Overvoltage	
+150V Undervoltage	302	0 to 1	Integer	-	1	0=OK, 1=Undervoltage	
Elevation Servo Amp Inhibit	303	0 to 1	Integer	-	1	1=Inhibit, 0=Normal	
Elevation Servo Amp Short Circuit	304	0 to 1	Integer	-	1	1=Short Circuit, 0=Normal	
Elevation Servo Amp Overtemp	305	0 to 1	Integer	-	1	1=Overtemp, 0=Normal	
Elevation Motor Overtemp	306	0 to 1	Integer	-	1	0=OK, 1=Overtemp	
Elevation Stow Pin	307	0 to 1	Integer	-	1	1=Engaged, 0=Operational	
Elevation PCU Parity	308	0 to 1	Integer	-	1	1=Fail, 0=OK	
Elevation Dead Limit	309	0 to 1	Integer	-	1	1=In Limit, 0=OK	
Elevation +Normal Limit	310	0 to 1	Integer	-	1	1=In Limit, 0=OK	
Elevation -Normal Limit	311	0 to 1	Integer	-	1	1=In Limit, 0=OK	
Elevation Encoder Light	312	0 to 1	Integer	-	1	1=Fail, 0=OK	
Elevation Gearbox Oil	313	0 to 1	Integer	-	1	1=Oil Level Low, 0=OK	
Elevation Handwheel	314	0 to 1	Integer	-	1	1=Engaged, 0=Operational	

DESCRIPTION	HALF WORD	RANGE	FORMAT	UNITS	LSB	VALUES	REMARKS
Elevation Amp PS	315	0 to 1	Integer	-	1	0=OK, 1=Fail	
Azimuth Servo Amp Inhibit	316	0 to 1	Integer	-	1	1=Inhibit, 0=OK	
Azimuth Servo Amp Short Circuit	317	0 to 1	Integer	-	1	1=Short Circuit, 0=OK	
Azimuth Servo Amp Overtemp	318	0 to 1	Integer	-	1	1=Overtemp, 0=OK	
Azimuth Motor Overtemp	319	0 to 1	Integer	-	1	0=OK, 1=Overtemp	
Azimuth Stow Pin	320	0 to 1	Integer	-	1	1=Engaged, 0=Operational	
Azimuth PCU Parity	321	0 to 1	Integer	-	1	1=Fail, 0=OK	
Azimuth Encoder Light	322	0 to 1	Integer	-	1	1=Fail, 0=OK	
Azimuth Gearbox Oil	323	0 to 1	Integer	-	1	1=Oil Level Low, 0=OK	
Azimuth Bull Gear Oil	324	0 to 1	Integer	-	1	1=Oil Level Low, 0=OK	
Azimuth Handwheel	325	0 to 1	Integer	-	1	1=Engaged, 0=Operational	
Azimuth Servo Amp PS	326	0 to 1	Integer	-	1	0=OK, 1=Fail	
Servo	327	0 to 1	Integer	-	1	1=Off, 0=On	
Pedestal Interlock Switch	328	0 to 1	Integer	-	1	1=Safe, 0=Operational	
Azimuth Position Correction	329	-1 to +1	Scaled Integer	Degrees	1	See Table III-A for format	
Elevation Position Correction	330	-1 to +1	Scaled Integer	Degrees	1	See Table III-A for format	
Self Test 1 Status	331	1 to 3	Integer	-	1	1=No, 2=OK, 3=Fail See Note(1)	
Self Test 2 Status	332	1 to 3	Integer	-	1	1=No, 2=OK, 3=Fail See Note(1)	

DESCRIPTION	HALF WORD	RANGE	FORMAT	UNITS	LSB	VALUES	REMARKS
Self Test 2 Data	333	-	Integer	-	1	Hex See ICD 2620014, ANT PED/RDA CTROL, Table VI	
Spares	334 - 340	-	-	-	-	0=Spare	
<u>RF Generator/Receiver</u>							
COHO/Clock	341	0 to 1	Integer	-	1	1=Fail, 0=OK	
Rf Generator Frequency Select Oscillator	342	0 to 1	Integer	-	1	1=Fail, 0=OK	
Rf Generator RF/STALO	343	0 to 1	Integer	-	1	1=Fail, 0=OK	
Rf Generator Phase Shifted COHO	344	0 to 1	Integer	-	1	1=Fail, 0=OK	
+9v Receiver PS	345	0 to 1	Integer	-	1	1=Fail, 0=OK	
+5v Receiver PS	346	0 to 1	Integer	-	1	1=Fail, 0=OK	
±18v Receiver PS	347	0 to 1	Integer	-	1	1=Fail, 0=OK	
-9v Receiver PS	348	0 to 1	Integer	-	1	1=Fail, 0=OK	
+5v Receiver Protector PS	349	0 to 1	Integer	-	1	1=Fail, 0=OK	
Spare	350	-	-	-	-	-	
Short Pulse Noise	351 - 352	-100.00 to -50.00	Float	dBm	0.01	NULL	
Long Pulse Noise	353 - 354	-100.00 to -50.00	Float	dBm	0.01	NULL	
Noise Temperature	355 - 356	0 to 9999.99	Float	K	0.01	NULL	
Spares	357 - 362	-	-	-	-	0=Spare	
<u>Calibration</u>							
Linearity	363 - 364	0.500 to 1.500	Float	-	0.000 1	NULL	
Dynamic Range	365 - 366	0.00 to 120.00	Float	dB	0.001	NULL	
Delta dBZ0	367 - 368	-198.00 to +198.00	Float	dB	0.01	NULL	

DESCRIPTION	HALF WORD	RANGE	FORMAT	UNITS	LSB	VALUES	REMARKS
Rcv Prot Attenuation	369 - 370	-99.9 to +99.9	Float	dB	0.01	NULL	
KD Peak Measured	371 - 372	-99.9 to +99.9	Float	dBm	0.01	NULL	
KD Injection Point Difference	373 - 374	-99.9 to +99.9	Float	dB	0.01	NULL	
Short Pulse, dBZ0	375 - 376	-99.9 to +99.9	Float	dBZ	0.000 1	NULL	
Long Pulse, dBZ0	377 - 378	-99.9 to +99.9	Float	dBZ	0.000 1	NULL	
Velocity (Processed)	379	0 to 1	Integer	-	1	0=Good, 1=Fail	
Width (Processed)	380	0 to 1	Integer	-	1	0=Good, 1=Fail	
Velocity (RF Gen)	381	0 to 1	Integer	-	1	0=Good, 1=Fail	
Width (RF Gen)	382	0 to 1	Integer	-	1	0=Good, 1=Fail	
I0	383 - 384	-999.9 to +999.9	Float	dBm	0.000 1	NULL	
Spare	385 - 408	-	-	-	-	0=Spare	
Clutter Suppression Delta	409- 410	-99.9 to +99.9	Float	dB	0.01	NULL	
Clutter Suppression Unfiltered Power	411 - 412	-99.9 to +99.9	Float	dBZ	0.01	NULL	
Clutter Suppression Filtered Power	413 - 414	-99.9 to +99.9	Float	dBZ	0.01	NULL	
Transmit Burst Power	415 - 416	-99.9 to +99.9	Float	dBm	0.01	NULL	
Transmit Burst Phase	417 - 418	-99.0 to +99.9	Float	degrees	0.01	NULL	
Spares	419 - 430	-	-	-	-	0=Spare	
<u>File Status</u>							
State File Read Status	431	0 to 1	Integer	-	1	0=OK, 1=Fail	
State File Write Status	432	0 to 1	Integer	-	1	0=OK, 1=Fail	
Bypass Map File Read Status	433	0 to 1	Integer	-	1	0=OK, 1=Fail	
Bypass Map File Write Status	434	0 to 1	Integer	-	1	0=OK, 1=Fail	
Spare	435	-	-	-	-	0=Spare	
Perf/Maint Data File Write Status	436	-	-	-	-	0=Spare	
Current Adaptation File Read Status	437	0 to 1	Integer	-	1	0=OK, 1=Fail	

DESCRIPTION	HALF WORD	RANGE	FORMAT	UNITS	LSB	VALUES	REMARKS
Current Adaptation File Write Status	438	0 to 1	Integer	-	1	0=OK, 1=Fail	
Censor Zone File Read Status	439	0 to 1	Integer	-	1	0=OK, 1=Fail	
Censor Zone File Write Status	440	0 to 1	Integer	-	1	0=OK, 1=Fail	
Remote VCP File Read Status	441	0 to 1	Integer	-	1	0=OK, 1=Fail	
Remote VCP File Write Status	442	0 to 1	Integer	-	1	0=OK, 1=Fail	
Baseline Adaptation File Read Status	443	0 to 1	Integer	-	1	0=OK, 1=Fail	
Spare	444	-	-	-	-	0=Spare	
Clutter Filter Map File Read Status	445	0 to 1	Integer	-	1	0=OK, 1=Fail	
Clutter Filter Map File Write Status	446	0 to 1	Integer	-	1	0=OK, 1=Fail	
General Disk I/O Error	447	0 to 1	Integer	-	1	0=OK, 1=Fail	
Spare	448 - 460	-	-	-	-	0=Spare	
Device Status							
DAU Comm Status	461	0 to 1	Integer	-	1	0=OK, 1=Fail	
HCI Comm Status	462	0 to 1	Integer	-	1	0=OK, 1=Fail	
Pedestal Comm Status	463	0 to 1	Integer	-	1	0=OK, 1=Fail	
Signal Processor Comm Status	464	0 to 1	Integer	-	1	0=OK, 1=Fail	
Spare	465	-	-	-	1	0 = Spare	
RMS Link Status	466	0 to 1	Integer	-	1	0 = Connected, 1 = Not Connected	
RPG Link Status	467	0 to 1	Integer	-	1	0 = Connected, 1 = Not Connected	
Spares	468 - 480	-	-	-	-	0 = Spare	

Notes:

(1) No = Not connected or not configured.

Table V-A General Error Codes (Deleted)

Table V-A ASCII Character Set Definition (Deleted)

Table VI Console Message (Message Types 4, 10)

NAME	DESCRIPTION	FORM AT	UNITS	RANGE	ACCURA CY/ PRECISI ON	HAL F WOR D
Console Message Size	Number of bytes/characters in message.	Integer	N/A	2 to 404	1	1
Message	ASCII characters, 2 characters per halfword, includes imbedded carriage returns, line feeds, etc.	ASCII	Characte rs	See Table V- E	N/A	2 to 203

Table VIII Loopback Test (Message Type 11 and Message Type 12)

Loopback message 11 is sent by the RDA to the RPG upon initial connection. The RPG will resend message 11, without any changes to the RDA. In addition, loopback message 12 will be sent from the RPG to the RDA upon initial connection. The RDA will simply retransmit message 12 to the RPG without any modifications.

NAME	DESCRIPTION	FORM AT	UNITS	RANGE	ACCURA CY/ PRECISI ON	HAL F WOR D
Loopback Message Size	Number of halfwords in message (does not include message header)	Integer	N/A	2 to 1200	1	1
Bit Pattern	Bit Pattern of 0's and 1's used to test interface.	N/A	N/A	N/A	N/A	2 to 1200

Table IX Clutter Filter Bypass Map (Message Type 13)

NAME	DESCRIPTION	FORM AT	UNI TS	RANGE	ACCURAC Y/ PRECISIO N	HALFW ORD LOCATI ON
Bypass Map Generation Date	Julian Date - 2440586.5 ⁽⁴⁾	Integer	Days	1 to 65535	1	1
Bypass Map Generation Time	Number of Minutes since Midnight Greenwich Mean Time	Integer	Minu tes	0 to 1440	1	2
Number of Segments	Number of Elevation Segments	Integer	N/A	1 to 5	1	3
For Each Segment: See Note ⁽¹⁾						
Segment Number	Segment Number	Integer	N/A	1 to 5	1	E1
Range Bins	Radial 1, Range Bins 0 to 15	Integer Code	N/A	0, 1 See Note ⁽²⁾	MSB = BIN 0	E2
Range Bins...	Radial 1, Range Bins 16 to 31	Integer Code	N/A	0, 1	MSB = BIN 16	E3

Range Bins	Radial 1, Range Bins 496 to 511	Integer Code	N/A	0, 1	MSB = BIN 496	E33
Range Bins	Radial 2, Range Bins 0 to 15	Integer Code	N/A	0, 1	MSB = BIN 0	E34
Range Bins	Radial 2, Range Bins 16 to 31	Integer Code	N/A	0, 1	MSB = BIN 16	E35

Range Bins	Radial 2 Range Bins 496 to 511	Integer Code	N/A	0, 1	MSB = BIN 496	E65
...
Range Bins	Radial 360 Range Bins 0 to 15	Integer Code	N/A	0, 1	MSB = BIN 0	E11490
Range Bins	Radial 360 Range Bins 16 to 31	Integer Code	N/A	0, 1	MSB = BIN 16	E11491

Range Bins	Radial 360 Range Bins 496 to 511	Integer Code	N/A	0, 1	MSB = BIN 496	E11521

(1) Each elevation segment includes 360 azimuth radials. Each azimuth radial consists of 512 range cells. Each range cell has 1 kilometer resolution starting at 0 to 1 kilometer. The first azimuth radial, R0, subtends the angle $0.0 \leq R0 < 1.0$ degrees, with the next azimuth radial, R1, subtending the angle $1.0 \leq R1 < 2.0$ degrees, etc. Increasing angles are taken to be clockwise relative to true north. Elevation segment number 1 is closest to the ground, increasing segment numbers denote increasing elevation.

(2) Each bit represents a range bin. Range Bins: 0 = perform clutter filtering; 1 = bypass the clutter filters

(3) 1 January 1970 00.00 Greenwich Mean Time = 1 Modified Julian Date

Table X RDA Control Commands (Message Type 6)

NAME	DESCRIPTION	FORMAT	UNITS	RANGE (OR VALUE)	ACCURACY / PRECISION	HALFWORD LOCATION
RDA STATE COMMAND Note ⁽¹⁾	Stand-By Offline Operate Operate Restart No Change	Integer Code (bit 0 & 15 =1) (bit 1 & 15 =1) (bit 2 & 15 =1) (bit 3 & 15 =1) Note ⁽²⁾	N/A	As Listed 32769 32770 32772 32776 0	N/A	1
BASE DATA TRANSMISSION ENABLE Note ⁽³⁾	Reflectivity Velocity Width None No Change	Integer Code (bit 0 & 15 =1) (bit 1 & 15 =1) (bit 2 & 15 =1) (bit 15 = 1)	N/A	As Listed 32769 32770 32772 32768 0	N/A	2
AUXILIARY POWER GENERATOR CONTROL Note ⁽⁴⁾	Switch to Auxiliary Power Switch to Utility Power No Change	Integer Code (bit 2 & 15 =1) (bit 1 & 15 =1)	N/A	As Listed 32772 32770 0	N/A	3
RDA CONTROL COMMANDS AND AUTHORIZATION	No Change Control Command Clear Local Control Enabled Remote Control Accepted Remote Control Requested	Integer Code	N/A	As listed 0 2 4 8 16	N/A	4
RESTART VCP OR ELEVATION CUT	Restart Volume Coverage Pattern Restart Elevation Cut None	Integer Code (bit 15 = 1) (bit 15 = 1; set binary number of cut in bits 0 to 7)	N/A	As Listed 32768 32768 + cut number 0	N/A	5
SELECT LOCAL VCP NUMBER FOR NEXT	Pattern Number Use Remote Pattern No Change	SInteger	N/A	As Listed 1 to 767 0 32767	1	6

NAME	DESCRIPTION	FORMAT	UNITS	RANGE (OR VALUE)	ACCURACY / PRECISION	HALFWORD LOCATION
VOLUME SCAN						
AUTOMATIC CALIBRATION OVERRIDE	Automatic Calibration Calibration Override No Change	SInteger, Scaled 2's Complement	N/A dB	32766 -10.00 to +10.00 32767 ⁽⁵⁾	1 0.01 1	7
SPARE	N/A	N/A	N/A	N/A	N/A	8 to 9
SPARE	N/A	N/A	N/A	N/A	N/A	10
SELECT OPERATING MODE	Leave at Current State Test Operational	Integer Code	N/A	As Listed 0 2 4	N/A	11
CHANNEL CONTROL COMMAND	No Change Set to Controlling Channel Set to Non- controlling Channel	Integer Code	N/A	As Listed 0 1 2	N/A	12
SPARE	3.2.4.2 <u>N/A</u>	N/A	N/A	N/A	N/A	13
SPARE	3.2.4.3 <u>N/A</u>	N/A	N/A	N/A	N/A	14
SPARE	3.2.4.4 <u>N/A</u>	N/A	N/A	N/A	N/A	15 - 16
SPARE	3.2.4.5 <u>N/A</u>	N/A	N/A	N/A	N/A	17
SPARE	3.2.4.6 <u>N/A</u>	N/A	N/A	N/A	N/A	18
SPARE	N/A	N/A	N/A	N/A	N/A	19 to 20
SPOT BLANKING	No Change Enable Spot Blanking Disable Spot Blanking	Integer	N/A	As Listed 0 2 4	N/A	21
SPARE	N/A	N/A	N/A	N/A	N/A	22 to 26

(1) Only one command is allowed at a time; except Restart, which is allowed with operational commands.

(2) LSB = bit 0

(3) Any and all combinations of data enabling are allowed; as well as all, and none.

(4) The states are mutually exclusive.

(5) The data in this field is stored as a scaled integer. The format is XX.YY. For example, -10.00 equals a value of -1000. A value of +0.25 would equal a value of 25.

Table XI Volume Coverage Pattern Data (Message Types 5 & 7)

NAME	DESCRIPTION	FORMAT (3)	UNITS	RANGE (OR VALUE)	ACCURACY/ PRECISION	HALFWORD LOCATION
MESSAGE SIZE	Number of Halfwords in Message	SInteger	Halfwords	23 to 594	1	1
PATTERN TYPE	Constant Elevation Cut	Integer Code (set bit 1)	N/A	As listed 2	N/A	2
PATTERN NUMBER	Maintenance/Test Operational Constant Elevation Types	SInteger	N/A	As Listed number > 255 number <=255 1 to 99	1	3
NUMBER OF ELEVATION CUTS (1)		SInteger	N/A	1 to 25	1	4
CLUTTER MAP GROUP NUMBER		SInteger	N/A	1 to 2	1	5
DOPPLER VELOCITY RESOLUTION	(Upper byte) 0.5 meters/second (set bit 9) 1.0 meters/second (set bit 10)	Integer Code	N/A	As Listed 2 4	N/A	6
PULSE WIDTH	(Lower byte) Short (set bit 1) Long (set bit 2)	Integer Code	N/A	As listed 2 4	N/A	6
SPARE		N/A	N/A	N/A	N/A	7 to 11
ELEVATION ANGLE (2)		see Table III-A	degrees	0 to 65535 (equates to 0 to 359.95605 5 degrees)	1 (equates to +/- 0.043945 degrees)	E1
CHANNEL CONFIGURATION (Upper Byte)	Linear Channel Spare Random Phase Constant Phase	Integer Code	N/A	As Listed MSB=0 MSB=1 LSB=1 LSB=0	N/A	E2
WAVEFORM TYPE (Lower Byte)	(Mutually Exclusive) Contiguous Surveillance Contiguous Doppler w/ Ambiguity Resolution Contiguous	Integer	N/A	As Listed 1 2 3 4 5	N/A	E2

NAME	DESCRIPTION	FORMAT (3)	UNITS	RANGE (OR VALUE)	ACCURACY/ PRECISION	HALFWORD LOCATION
	Doppler w/o Ambiguity Resolution Batch Staggered Pulse Pair					
SURVEILLANCE PRF NUMBER ⁽⁴⁾		SInteger	N/A	0 to 8	1	E3
SURVEILLANCE PRF PULSE COUNT/RADIAL ⁽⁴⁾		SInteger	N/A	0 to 999	1	E4
AZIMUTH RATE		See Table XI-D	degrees /second	-32768 to +32767 (equates to -44.989 to +44.989 degrees/se cond)	1 (equates to +/- 0.010986328 125 degrees/seco nd)	E5
REFLECTIVITY THRESHOLD	(LSB = 1/8 dB)	SInteger, Scaled	dB	-12.0 to +20.0	1/8 dB	E6
VELOCITY THRESHOLD	(LSB = 1/8 dB)	SInteger, Scaled	dB	-12.0 to +20.0	1/8 dB	E7
SPECTRUM WIDTH THRESHOLD	(LSB = 1/8 dB)	SInteger, Scaled	dB	-12.0 to +20.0	1/8 dB	E8
SPARES		N/A	N/A	N/A	N/A	E9 to E11
EDGE ANGLE	Sector 1 Azimuth Clockwise Edge Angle (denotes start angle)	See Table III-A	degrees	0 to 65535 (equates to 0 to 359.95605 5 degrees)	1 (equates to +/- 0.043945 degrees)	E12
DOPPLER PRF NUMBER ⁽⁴⁾	Sector 1 Doppler PRF Number	SInteger	N/A	0 to 8	1	E13
DOPPLER PRF PULSE COUNT/RADIAL ⁽⁴⁾	Sector 1 Doppler Pulse Count/Radial	SInteger	N/A	0 to 999	1	E14
SPARE		N/A	N/A	N/A	N/A	E15
SAME AS E12 to E15 FOR SECTOR 2						E16 to E19
SAME AS E12 to E15 FOR SECTOR 3						E20 to E23

(1) For Constant Elevation Cut Type.

(2) For Each Elevation Cut, repeat E1-E23

(3) In the following table, a halfword is defined to be 16 bits. All bit locations are referenced from 0 (the LSB) to 15 (the MSB).

(4) Zero values are only to be used when the field is non-applicable. For example ... for VCP 21, cut 1

Document Number 2620002D
Code Identification 0WY55
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Open Build 8.0

is a contiguous surveillance cut. The Doppler fields will all have "0" for their value. Cut 2 is a contiguous doppler cut, thus the surveillance fields will have "0" for their value.

Table XI-D Azimuth and Elevation Rate Data

BIT	WEIGHT
0	X Note ⁽¹⁾
1	X
2	X
3	0.010986328125
4	0.02197265625
5	0.0439453125
6	0.087890625
7	0.17578125
8	0.3515625
9	0.703125
10	1.40625
11	2.8125
12	5.625
13	11.25
14	22.5
15	Sign Bit (1 indicates negative)

Note: Units are degrees/second

(1) X indicates not applicable

Word is 2's complement binary scaled integer (i.e., Integer *2)

Table XII Clutter Censor Zones (Message Type 8)

NAME	DESCRIPTION	FORM AT	UNI TS	RANGE (OR VALUE)	ACCUR ACY/ PRECIS ION	HALFWOR D LOCATION
OVERRIDE REGIONS	Number of Clutter Map Override Regions	Integer	N/A	0 to 15	1	1
START RANGE ⁽¹⁾		Integer	Km	0 to 511	1	R1 [2 + (i*6)] ⁽²⁾
STOP RANGE		Integer	Km	0 to 511	1	R2 [3 + (i*6)] ⁽²⁾
START AZIMUTH		Integer	Degr ee	0 to 360	1	R3 [4 + (i*6)] ⁽²⁾
STOP AZIMUTH		Integer	Degr ee	0 to 360	1	R4 [5 + (i*6)] ⁽²⁾
ELEVATION SEGMENT NUMBER	Elevation segment 1 is closest to the ground, increasing segment number denotes increasing elevation.	Integer	N/A	1 to 5	1	R5 [6 + (i*6)] ⁽²⁾
OPERATOR SELECT CODE	Bypass Filter Forced (no filtering) Bypass Map in Control Clutter Filtering Forced	Integer	N/A	As Listed 0 1 2	N/A	R6 [7 + (i*6)] ⁽²⁾

(1) For each subsequent region, halfwords R1 through R6 shall be repeated. For example, region 0 will use halfwords 2 through 7, region 1 will use halfwords 8 through 13, region 2 will use halfwords 14 through 19, etc.

(2) i = Override region number, i.e., 0 to 15.

Table XIII Request for Data (Message Type 9)

NAME	DESCRIPTION	FORMAT	UNIT S	RANGE (OR VALUE)	ACCURACY/ PRECISION	HALFWORD LOCATION
DATA TYPE	(LSB = bit 0)	Integer Code	N/A	As Listed	N/A	1
	Request Summary RDA Status	(set bits 0&7=1)	N/A	129	N/A	1
	Request RDA Performance/Maintenance Data	(set bits 1&7=1)	N/A	130	N/A	1
	Request Clutter Filter Bypass Map	(set bits 2&7=1)	N/A	132	N/A	1
	Request Clutter Filter Map	(set bits 3&7=1)	N/A	136	N/A	1
	Request RDA Adaptation Data	(set bits 4&7=1)	N/A	144	N/A	1
	Request Volume Coverage Pattern Data	(set bits 5&7=1)	N/A	160	N/A	1

Table XIV Clutter Filter Map (Message Type 15)

NAME	DESCRIPTION	FORMA T	UNITS	RANGE (OR VALUE)	ACCURACY/ PRECISION	HALFWORD LOCATION
Map Generation Date	Julian Date - 2440586.5 ⁽¹⁾	Integer	Days	1 to 65535	1	1
Map Generation Time	Number of Minutes since Midnight Greenwich Mean Time	Integer	Minute s	0 to 1440	1	2
Number of Elevation Segments		Integer	N/A	1 to 5	1	3
Repeat for each Elevation Segment ⁽²⁾						
Repeat for each Azimuth Segment ⁽³⁾						
Number of Range Zones		Integer	N/A	1 to 20	1	<i>A1</i>
Range Zone ⁽⁴⁾						
Op Code	Bypass Filter Bypass map in Control Force Filter	Integer	N/A	As Listed 0 1 2	N/A	<i>R1</i>
End Range ⁽⁴⁾	Stop Range per Zone	Integer	Km	0 to 511	1	<i>R2</i>
Same as R1 & R2 for Range Zone 1						
...
Same as R1 & R2 for # of Range Zones specified						

(1) 1 January 1970 00.00 Greenwich Mean Time = 1 Modified Julian Date

(2) There can be up to 5 elevation segments. Typically, only 2 elevation segments are used. The first elevation segment is closest to the ground, increasing segment numbers denote increasing elevation.

(3) There are 360 azimuth segments (segment 0 through segment 359). The first azimuth radial, R0, subtends the angle ($0.0 \leq R0 < 1.0$) degrees, with the next azimuth radial, R1, subtending the angle ($1.0 \leq R1 < 2.0$) degrees, etc. Increasing angles are taken to be clockwise relative to true north.

(4) There are 20 range zones. Not all range zones need to be defined. The last range zone must have end range of 511.

Table XV - Adaptation Data Simplified

Sorted by Byte Displacement within the RDA Adaptation Data file.

For the Item Identifier:

A = Antenna/Pedestal

T = Tower/Utilities

TR = Transmitter

R = Receiver

SP = Signal Processor

ST = System Test Software

C = Communications

SYS = System Information

SG = SIGMET

VCP = Volume Coverage Pattern

VARIABLE NAME	DESCRIPTION	UNITS	FORMAT	ACCURACY/ PRECISION	RANGE	BYTE LOCATION
ADAP_FILE_NAME	NAME OF ADAPTATION DATA FILE		String			0 - 11
ADAP_FORMAT	FORMAT OF ADAPTATION DATA FILE		Char			12 - 15
ADAP_REVISION	REVISION NUMBER OF ADAPTATION DATA FILE		Char			16 - 19
ADAP_DATE	LAST MODIFIED DATE ADAPTATION DATA FILE	mm/dd /yy	String			20 - 31
ADAP_TIME	LAST MODIFIED TIME OF ADAPTATION DATA FILE	hh- mm-ss	String			32 - 43
K1	AZIMUTH POSITION GAIN FACTOR (K1)	ratio	Float	0.01	0.50 to 2.00	44 - 47
AZ_LAT	LATENCY OF DCU AZIMUTH MEASUREMENT	second s	Float	.0001	0.0000 to 2.0000	48 - 51
K3	ELEVATION POSITION GAIN FACTOR (K3)	ratio	Float	0.01	0.50 to 2.00	52 - 55
EL_LAT	LATENCY OF DCU ELEVATION MEASUREMENT	second s	Float	.0001	0.0000 to 2.0000	56 - 59
PARKAZ	PEDESTAL PARK POSITION IN AZIMUTH	degree s	Float	0.01	0.00 to 359.99	60 - 63
PARKEL	PEDESTAL PARK POSITION IN ELEVATION	degree s	Float	0.01	-1.00 to 55.00	64 - 67
A_FUEL_CONV(0)	GENERATOR FUEL	percen	Float	0.1	0.0 to	68 - 71

VARIABLE NAME	DESCRIPTION	UNITS	FORMAT	ACCURACY/ PRECISION	RANGE	BYTE LOCATION
	LEVEL HEIGHT/CAPACITY CONVERSION (0% HGT)	t			100.0	
A_FUEL_CONV(1)	GENERATOR FUEL LEVEL HEIGHT/CAPACITY CONVERSION (10% HGT)	percen t	Float	0.1	0.0 to 100.0	72 - 75
A_FUEL_CONV(2)	GENERATOR FUEL LEVEL HEIGHT/CAPACITY CONVERSION (20% HGT)	percen t	Float	0.1	0.0 to 100.0	76 - 79
A_FUEL_CONV(3)	GENERATOR FUEL LEVEL HEIGHT/CAPACITY CONVERSION (30% HGT)	percen t	Float	0.1	0.0 to 100.0	80 - 83
A_FUEL_CONV(4)	GENERATOR FUEL LEVEL HEIGHT/CAPACITY CONVERSION (40% HGT)	percen t	Float	0.1	0.0 to 100.0	84 - 87
A_FUEL_CONV(5)	GENERATOR FUEL LEVEL HEIGHT/CAPACITY CONVERSION (50% HGT)	percen t	Float	0.1	0.0 to 100.0	88 - 91
A_FUEL_CONV(6)	GENERATOR FUEL LEVEL HEIGHT/CAPACITY CONVERSION (60% HGT)	percen t	Float	0.1	0.0 to 100.0	92 - 95
A_FUEL_CONV(7)	GENERATOR FUEL LEVEL HEIGHT/CAPACITY CONVERSION (70% HGT)	percen t	Float	0.1	0.0 to 100.0	96 - 99
A_FUEL_CONV(8)	GENERATOR FUEL LEVEL HEIGHT/CAPACITY CONVERSION (80% HGT)	percen t	Float	0.1	0.0 to 100.0	100 - 103
A_FUEL_CONV(9)	GENERATOR FUEL LEVEL HEIGHT/CAPACITY CONVERSION (90% HGT)	percen t	Float	0.1	0.0 to 100.0	104 - 107

VARIABLE NAME	DESCRIPTION	UNITS	FORMAT	ACCURACY/ PRECISION	RANGE	BYTE LOCATION
	HGT)					
A_FUEL_CONV(10)	GENERATOR FUEL LEVEL HEIGHT/CAPACITY CONVERSION (100% HGT)	percen t	Float	0.1	0.0 to 100.0	108 - 111
A_MIN_SHELTER_ TEMP	MINIMUM EQUIPMENT SHELTER ALARM TEMPERATURE	degree s Celsius	Float	0.1	0.0 to 50.0	112 - 115
A_MAX_SHELTER_ TEMP	MAXIMUM EQUIPMENT SHELTER ALARM TEMPERATURE	degree s Celsius	Float	0.1	0.0 to 50.0	116 - 119
A_MIN_SHELTER_ AC_TEMP_DIFF	MINIMUM A/C DISCHARGE AIR TEMPERATURE DIFFERENTIAL	degree s Celsius	Float	0.1	0.0 to 10.0	120 - 123
A_MAX_XMTR_AIR_ TEMP	MAXIMUM TRANSMITTER LEAVING AIR ALARM TEMPERATURE	degree s Celsius	Float	0.1	0.0 to 60.0	124 - 127
A_MAX_RAD_TEMP	MAXIMUM RADOME ALARM TEMPERATURE	degree s Celsius	Float	0.1	0.0 to 50.0	128 - 131
A_MAX_RAD_TEMP_ RISE	MAXIMUM RADOME MINUS AMBIENT TEMPERATURE DIFFERENCE	degree s Celsius	Float	0.1	0.0 to 10.0	132 - 135
PED_28V_REG_LIM	PEDESTAL +28 VOLT POWER SUPPLY TOLERANCE	percen t	Float	0.1	0.0 to 20.0	136 - 139
PED_5V_REG_LIM	PEDESTAL +5 VOLT POWER SUPPLY TOLERANCE	percen t	Float	0.1	0.0 to 20.0	140 - 143
PED_15V_REG_LIM	PEDESTAL +/- 15 VOLT POWER SUPPLY TOLERANCE	percen t	Float	0.1	0.0 to 20.0	144 - 147
A_MIN_GEN_ROOM_ TEMP	MINIMUM GENERATOR SHELTER ALARM TEMPERATURE	degree s Celsius	Float	0.1	0.0 to 50.0	148 - 151
A_MAX_GEN_ROO M_TEMP	MAXIMUM GENERATOR SHELTER ALARM TEMPERATURE	degree s Celsius	Float	0.1	0.0 to 50.0	152 - 155
DAU_5V_REG_LIM	DAU +5 VOLT POWER SUPPLY TOLERANCE	percen t	Float	0.1	0.0 to 20.0	156 - 159

VARIABLE NAME	DESCRIPTION	UNITS	FORMAT	ACCURACY/ PRECISION	RANGE	BYTE LOCATION
DAU_15V_REG_LIM	DAU +/- 15 VOLT POWER SUPPLY TOLERANCE	percent	Float	0.1	0.0 to 20.0	160 - 163
DAU_28V_REG_LIM	DAU +28 VOLT POWER	percent	Float	0.1	0.0 to 20.0	164 - 167
EN_5V_REG_LIM	ENCODER +5 VOLT POWER SUPPLY TOLERANCE	percent	Float	0.01	0.00 to 20.00	168 - 171
EN_5V_NOM_VOLT S	ENCODER +5 VOLT POWER SUPPLY NOMINAL VOLTAGE	volts	Float	0.01	0.00 to 6.60	172 - 175
RPG_CO_LOCATED	RPG CO-LOCATED	N/A	Char	N/A	T or F	176 - 179
SPEC_FILTER_INSTALLED	TRANSMITTER SPECTRUM FILTER INSTALLED	N/A	Char	N/A	T or F	180 - 183
TPS_INSTALLED	TRANSITION POWER SOURCE INSTALLED	N/A	Char	N/A	T or F	184 - 187
RMS_INSTALLED	FAA RMS INSTALLED	N/A	Char	N/A	T or F	188 - 191
A_HVDL_TST_INT	REFLECTIVITY AND CLUTTER SUPPRESSION TEST INTERVAL	hours	Integer	1	2 to 72	192 - 195
A_RPG_LT_INT	RPG LOOP TEST INTERVAL	minutes	Integer	1	1 to 20	196 - 199
A_MIN_STAB_UTIL _PWR_TIME	REQUIRED INTERVAL TIME FOR STABLE UTILITY POWER	minutes	Integer	1	1 to 20	200 - 203
A_GEN_AUTO_EXE R_INTERVAL	MAXIMUM GENERATOR AUTOMATIC EXERCISE INTERVAL	hours	Integer	1	5 to 500	204 - 207
A_UTIL_PWR_SW_ REQ_INTERVAL	RECOMMENDED SWITCH TO UTILITY POWER TIME INTERVAL	minutes	Integer	1	5 to 30	208 - 211
A_LOW_FUEL_LEVEL	LOW FUEL TANK WARNING LEVEL	percent	Float	0.1	0.0 to 100.0	212 - 215
CONFIG_CHAN_NUMBER	CONFIGURATION CHANNEL NUMBER	N/A	Integer	1	1 or 2	216 - 219
A_RPG_LINK_TYPE	RPG WIDEBAND LINK TYPE (0 = DIRECT, 1 = MICROWAVE, 2 = FIBER OPTIC)	N/A	Integer	1	0 to 2	220 - 223
REDUNDANT_CHAN_CONFIG	REDUNDANT CHANNEL CONFIGURATION (1 = SINGLE CHAN, 2 = FAA, 3 = NWS	N/A	Integer	1	1 to 3	224 - 227

VARIABLE NAME	DESCRIPTION	UNITS	FORMAT	ACCURACY/ PRECISION	RANGE	BYTE LOCATION
	REDUNDANT)					
ATTEN_TABLE(0)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (0dB)	dB	Float	0.01	-1.00 to 1.00	228 - 231
ATTEN_TABLE(1)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (1dB)	dB	Float	0.01	-2.00 to 0.00	232 - 235
ATTEN_TABLE(2)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (2dB)	dB	Float	0.01	-3.00 to -1.00	236 - 239
ATTEN_TABLE(3)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (3dB)	dB	Float	0.01	-4.00 to -2.00	240 - 243
ATTEN_TABLE(4)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (4dB)	dB	Float	0.01	-5.00 to -3.00	244 - 247
ATTEN_TABLE(5)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (5dB)	dB	Float	0.01	-6.00 to -4.00	248 - 251
ATTEN_TABLE(6)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (6dB)	dB	Float	0.01	-7.00 to -5.00	252 - 255
ATTEN_TABLE(7)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (7dB)	dB	Float	0.01	-8.00 to -6.00	256 - 259
ATTEN_TABLE(8)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (8dB)	dB	Float	0.01	-9.00 to -7.00	260 - 263
ATTEN_TABLE(9)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (9dB)	dB	Float	0.01	-10.00 to -8.00	264 - 267
ATTEN_TABLE(10)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (10dB)	dB	Float	0.01	-11.00 to -9.00	268 - 271
ATTEN_TABLE(11)	TEST SIGNAL ATTENUATOR INSERTION LOSSES	dB	Float	0.01	-12.00 to - 10.00	272 - 275

VARIABLE NAME	DESCRIPTION	UNITS	FORMAT	ACCURACY/ PRECISION	RANGE	BYTE LOCATION
	(11dB)					
ATTEN_TABLE(12)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (12dB)	dB	Float	0.01	-13.00 to - 11.00	276 - 279
ATTEN_TABLE(13)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (13dB)	dB	Float	0.01	-14.00 to - 12.00	280 - 283
ATTEN_TABLE(14)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (14dB)	dB	Float	0.01	-15.00 to - 13.00	284 - 287
ATTEN_TABLE(15)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (15dB)	dB	Float	0.01	-16.00 to - 14.00	288 - 291
ATTEN_TABLE(16)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (16dB)	dB	Float	0.01	-17.00 to - 15.00	292 - 295
ATTEN_TABLE(17)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (17dB)	dB	Float	0.01	-18.00 to - 16.00	296 - 299
ATTEN_TABLE(18)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (18dB)	dB	Float	0.01	-19.00 to - 17.00	300 - 303
ATTEN_TABLE(19)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (19dB)	dB	Float	0.01	-20.00 to - 18.00	304 - 307
ATTEN_TABLE(20)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (20dB)	dB	Float	0.01	-21.00 to - 19.00	308 - 311
ATTEN_TABLE(21)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (21dB)	dB	Float	0.01	-22.00 to - 20.00	312 - 315
ATTEN_TABLE(22)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (22dB)	dB	Float	0.01	-23.00 to - 21.00	316 - 319
ATTEN_TABLE(23)	TEST SIGNAL ATTENUATOR INSERTION LOSSES	dB	Float	0.01	-24.00 to - 22.00	320 - 323

VARIABLE NAME	DESCRIPTION	UNITS	FORMAT	ACCURACY/ PRECISION	RANGE	BYTE LOCATION
	(23dB)					
ATTEN_TABLE(24)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (24dB)	dB	Float	0.01	-25.00 to - 23.00	324 - 327
ATTEN_TABLE(25)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (25dB)	dB	Float	0.01	-26.00 to - 24.00	328 - 331
ATTEN_TABLE(26)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (26dB)	dB	Float	0.01	-27.00 to - 25.00	332 - 335
ATTEN_TABLE(27)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (27dB)	dB	Float	0.01	-28.00 to - 26.00	336 - 339
ATTEN_TABLE(28)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (28dB)	dB	Float	0.01	-29.00 to - 27.00	340 - 343
ATTEN_TABLE(29)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (29dB)	dB	Float	0.01	-30.00 to - 28.00	344 - 347
ATTEN_TABLE(30)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (30dB)	dB	Float	0.01	-31.00 to - 29.00	348 - 351
ATTEN_TABLE(31)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (31dB)	dB	Float	0.01	-32.00 to - 30.00	352 - 355
ATTEN_TABLE(32)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (32dB)	dB	Float	0.01	-33.00 to - 31.00	356 - 359
ATTEN_TABLE(33)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (33dB)	dB	Float	0.01	-34.00 to - 32.00	360 - 363
ATTEN_TABLE(34)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (34dB)	dB	Float	0.01	-35.00 to - 33.00	364 - 367
ATTEN_TABLE(35)	TEST SIGNAL ATTENUATOR INSERTION LOSSES	dB	Float	0.01	-36.00 to - 34.00	368 - 371

VARIABLE NAME	DESCRIPTION	UNITS	FORMAT	ACCURACY/ PRECISION	RANGE	BYTE LOCATION
	(35dB)					
ATTEN_TABLE(36)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (36dB)	dB	Float	0.01	-37.00 to - 35.00	372 - 375
ATTEN_TABLE(37)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (37dB)	dB	Float	0.01	-38.00 to - 36.00	376 - 379
ATTEN_TABLE(38)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (38dB)	dB	Float	0.01	-39.00 to - 37.00	380 - 383
ATTEN_TABLE(39)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (39dB)	dB	Float	0.01	-40.00 to - 38.00	384 - 387
ATTEN_TABLE(40)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (40dB)	dB	Float	0.01	-41.00 to - 39.00	388 - 391
ATTEN_TABLE(41)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (41dB)	dB	Float	0.01	-42.00 to - 40.00	392 - 395
ATTEN_TABLE(42)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (42dB)	dB	Float	0.01	-43.00 to - 41.00	396 - 399
ATTEN_TABLE(43)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (43dB)	dB	Float	0.01	-44.00 to - 42.00	400 - 403
ATTEN_TABLE(44)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (44dB)	dB	Float	0.01	-45.00 to - 43.00	404 - 407
ATTEN_TABLE(45)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (45dB)	dB	Float	0.01	-46.00 to - 44.00	408 - 411
ATTEN_TABLE(46)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (46dB)	dB	Float	0.01	-47.00 to - 45.00	412 - 415
ATTEN_TABLE(47)	TEST SIGNAL ATTENUATOR INSERTION LOSSES	dB	Float	0.01	-48.00 to - 46.00	416 - 419

VARIABLE NAME	DESCRIPTION	UNITS	FORMAT	ACCURACY/ PRECISION	RANGE	BYTE LOCATION
	(47dB)					
ATTEN_TABLE(48)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (48dB)	dB	Float	0.01	-49.00 to - 47.00	420 - 423
ATTEN_TABLE(49)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (49dB)	dB	Float	0.01	-50.00 to - 48.00	424 - 427
ATTEN_TABLE(50)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (50dB)	dB	Float	0.01	-51.00 to - 49.00	428 - 431
ATTEN_TABLE(51)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (51dB)	dB	Float	0.01	-52.00 to - 50.00	432 - 435
ATTEN_TABLE(52)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (52dB)	dB	Float	0.01	-53.00 to - 51.00	436 - 439
ATTEN_TABLE(53)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (53dB)	dB	Float	0.01	-54.00 to - 52.00	440 - 443
ATTEN_TABLE(54)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (54dB)	dB	Float	0.01	-55.00 to - 53.00	444 - 447
ATTEN_TABLE(55)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (55dB)	dB	Float	0.01	-56.00 to - 54.00	448 - 451
ATTEN_TABLE(56)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (56dB)	dB	Float	0.01	-57.00 to - 55.00	452 - 455
ATTEN_TABLE(57)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (57dB)	dB	Float	0.01	-58.00 to - 56.00	456 - 459
ATTEN_TABLE(58)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (58dB)	dB	Float	0.01	-59.00 to - 57.00	460 - 463
ATTEN_TABLE(59)	TEST SIGNAL ATTENUATOR INSERTION LOSSES	dB	Float	0.01	-60.00 to - 58.00	464 - 467

VARIABLE NAME	DESCRIPTION	UNITS	FORMAT	ACCURACY/ PRECISION	RANGE	BYTE LOCATION
	(59dB)					
ATTEN_TABLE(60)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (60dB)	dB	Float	0.01	-61.00 to - 59.00	468 - 471
ATTEN_TABLE(61)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (61dB)	dB	Float	0.01	-62.00 to - 60.00	472 - 475
ATTEN_TABLE(62)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (62dB)	dB	Float	0.01	-63.00 to - 61.00	476 - 479
ATTEN_TABLE(63)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (63dB)	dB	Float	0.01	-64.00 to - 62.00	480 - 483
ATTEN_TABLE(64)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (64dB)	dB	Float	0.01	-65.00 to - 63.00	484 - 487
ATTEN_TABLE(65)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (65dB)	dB	Float	0.01	-66.00 to - 64.00	488 - 491
ATTEN_TABLE(66)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (66dB)	dB	Float	0.01	-67.00 to - 65.00	492 - 495
ATTEN_TABLE(67)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (67dB)	dB	Float	0.01	-68.00 to - 66.00	496 - 499
ATTEN_TABLE(68)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (68dB)	dB	Float	0.01	-69.00 to - 67.00	500 - 503
ATTEN_TABLE(69)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (69dB)	dB	Float	0.01	-70.00 to - 68.00	504 - 507
ATTEN_TABLE(70)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (70dB)	dB	Float	0.01	-71.00 to - 69.00	508 - 511
ATTEN_TABLE(71)	TEST SIGNAL ATTENUATOR INSERTION LOSSES	dB	Float	0.01	-72.00 to - 70.00	512 - 515

VARIABLE NAME	DESCRIPTION	UNITS	FORMAT	ACCURACY/ PRECISION	RANGE	BYTE LOCATION
	(71dB)					
ATTEN_TABLE(72)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (72dB)	dB	Float	0.01	-73.00 to - 71.00	516 - 519
ATTEN_TABLE(73)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (73dB)	dB	Float	0.01	-74.00 to - 72.00	520 - 523
ATTEN_TABLE(74)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (74dB)	dB	Float	0.01	-75.00 to - 73.00	524 - 527
ATTEN_TABLE(75)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (75dB)	dB	Float	0.01	-76.00 to - 74.00	528 - 531
ATTEN_TABLE(76)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (76dB)	dB	Float	0.01	-77.00 to - 75.00	532 - 535
ATTEN_TABLE(77)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (77dB)	dB	Float	0.01	-78.00 to - 76.00	536 - 539
ATTEN_TABLE(78)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (78dB)	dB	Float	0.01	-79.00 to - 77.00	540 - 543
ATTEN_TABLE(79)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (79dB)	dB	Float	0.01	-80.00 to - 78.00	544 - 547
ATTEN_TABLE(80)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (80dB)	dB	Float	0.01	-81.00 to - 79.00	548 - 551
ATTEN_TABLE(81)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (81dB)	dB	Float	0.01	-82.00 to - 80.00	552 - 555
ATTEN_TABLE(82)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (82dB)	dB	Float	0.01	-83.00 to - 81.00	556 - 559
ATTEN_TABLE(83)	TEST SIGNAL ATTENUATOR INSERTION LOSSES	dB	Float	0.01	-84.00 to - 82.00	560 - 563

VARIABLE NAME	DESCRIPTION	UNITS	FORMAT	ACCURACY/ PRECISION	RANGE	BYTE LOCATION
	(83dB)					
ATTEN_TABLE(84)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (84dB)	dB	Float	0.01	-85.00 to - 83.00	564 - 567
ATTEN_TABLE(85)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (85dB)	dB	Float	0.01	-86.00 to - 84.00	568 - 571
ATTEN_TABLE(86)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (86dB)	dB	Float	0.01	-87.00 to - 85.00	572 - 575
ATTEN_TABLE(87)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (87dB)	dB	Float	0.01	-88.00 to - 86.00	576 - 579
ATTEN_TABLE(88)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (88dB)	dB	Float	0.01	-89.00 to - 87.00	580 - 583
ATTEN_TABLE(89)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (89dB)	dB	Float	0.01	-90.00 to - 88.00	584 - 587
ATTEN_TABLE(90)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (90dB)	dB	Float	0.01	-91.00 to - 89.00	588 - 591
ATTEN_TABLE(91)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (91dB)	dB	Float	0.01	-92.00 to - 90.00	592 - 595
ATTEN_TABLE(92)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (92dB)	dB	Float	0.01	-93.00 to - 91.00	596 - 599
ATTEN_TABLE(93)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (93dB)	dB	Float	0.01	-94.00 to - 92.00	600 - 603
ATTEN_TABLE(94)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (94dB)	dB	Float	0.01	-95.00 to - 93.00	604 - 607
ATTEN_TABLE(95)	TEST SIGNAL ATTENUATOR INSERTION LOSSES	dB	Float	0.01	-96.00 to - 94.00	608 - 611

VARIABLE NAME	DESCRIPTION	UNITS	FORMAT	ACCURACY/ PRECISION	RANGE	BYTE LOCATION
	(95dB)					
ATTEN_TABLE(96)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (96dB)	dB	Float	0.01	-97.00 to - 95.00	612 - 615
ATTEN_TABLE(97)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (97dB)	dB	Float	0.01	-98.00 to - 96.00	616 - 619
ATTEN_TABLE(98)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (98dB)	dB	Float	0.01	-99.00 to - 97.00	620 - 623
ATTEN_TABLE(99)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (99dB)	dB	Float	0.01	-100.00 to - 98.00	624 - 627
ATTEN_TABLE(100)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (100dB)	dB	Float	0.01	-101.00 to - 99.00	628 - 631
ATTEN_TABLE(101)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (101dB)	dB	Float	0.01	-102.00 to - 100.00	632 - 635
ATTEN_TABLE(102)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (102dB)	dB	Float	0.01	-103.00 to - 101.00	636 - 639
ATTEN_TABLE(103)	TEST SIGNAL ATTENUATOR INSERTION LOSSES (103dB)	dB	Float	0.01	-104.00 to - 102.00	640 - 643
PATH_LOSSES(1)	PATH LOSS - 2A3J1_2/2A7J1_2 RECEIVER PROTECTOR	dB	Float	0.01	-3.00 to -0.10	644 - 647
PATH_LOSSES(2)	PATH LOSS - 2A3J3/2A7J3 RECEIVER PROTECTOR TEST COUPLER	dB	Float	0.01	-24.00 to - 16.00	648 - 651
PATH_LOSSES(3)	PATH LOSS - 2A4J1_2/2A8J1_2 LOW NOISE AMPLIFIER	dB	Float	0.01	24.00 to 32.00	652 - 655
PATH_LOSSES(4)	PATH LOSS - A4 PRESELECT BANDPASS FILTER	dB	Float	0.01	-3.50 to -0.50	656 - 659

VARIABLE NAME	DESCRIPTION	UNITS	FORMAT	ACCURACY/ PRECISION	RANGE	BYTE LOCATION
PATH_LOSSES(5)	PATH LOSS - DC2 DIRECTIONAL COUPLER	dB	Float	0.01	-25.00 to - 15.00	660 - 663
PATH_LOSSES(6)	PATH LOSS - W102 RECEIVE COAX A4 TO A5	dB	Float	0.01	-0.50 to 0.00	664 - 667
PATH_LOSSES(7)	PATH LOSS - LOW NOISE AMPLIFIER TO A36 PAD	dB	Float	0.01	-5.00 to -0.50	668 - 671
PATH_LOSSES(8)	PATH LOSS - A5J1_3 MIXER PREAMPLIFIER	dB	Float	0.01	15.00 to 25.00	672 - 675
PATH_LOSSES(9)	PATH LOSS - A5J1_4 MIXER PREAMPLIFIER	dB	Float	0.01	0.00 to 10.00	676 - 679
PATH_LOSSES(10)	PATH LOSS - A5J1_5 MIXER PREAMPLIFIER	dB	Float	0.01	-25.00 to - 15.00	680 - 683
PATH_LOSSES(11)	PATH LOSS - A5J2_6 MIXER PREAMPLIFIER	dB	Float	0.01	-35.00 to - 25.00	684 - 687
PATH_LOSSES(12)	PATH LOSS - A5J1_7 MIXER PREAMPLIFIER	dB	Float	0.01	-13.00 to -2.00	688 - 691
PATH_LOSSES(13)	PATH LOSS - A21 RF DELAY LINE	dB	Float	0.01	-60.00 to - 40.00	692 - 695
PATH_LOSSES(14)	PATH LOSS - DC1 DIRECTIONAL COUPLER	dB	Float	0.01	-45.00 to - 35.00	696 - 699
PATH_LOSSES(15)	PATH LOSS - A22J1_5 FOUR POSITION TEST SWITCH	dB	Float	0.01	9.00 to 15.00	700 - 703
PATH_LOSSES(16)	PATH LOSS - A22J2_5 FOUR POSITION TEST SWITCH	dB	Float	0.01	-5.00 to -0.50	704 - 707
PATH_LOSSES(17)	PATH LOSS - A22J3_5 FOUR POSITION TEST SWITCH	dB	Float	0.01	-5.00 to -0.50	708 - 711
PATH_LOSSES(18)	PATH LOSS - A22J4_5 FOUR POSITION TEST SWITCH	dB	Float	0.01	-5.00 to -0.50	712 - 715
PATH_LOSSES(19)	PATH LOSS - A22J2_6 FOUR POSITION TEST SWITCH	dB	Float	0.01	-35.00 to - 25.00	716 - 719
PATH_LOSSES(20)	PATH LOSS - A22J3_7 FOUR POSITION TEST SWITCH	dB	Float	0.01	-35.00 to - 25.00	720 - 723
PATH_LOSSES(21)	PATH LOSS - A23J1_2 TEST ATTENUATOR	dB	Float	0.01	-8.00 to -3.00	724 - 727
PATH_LOSSES(22)	PATH LOSS - A23J1_3	dB	Float	0.01	-35.00	728 - 731

VARIABLE NAME	DESCRIPTION	UNITS	FORMAT	ACCURACY/ PRECISION	RANGE	BYTE LOCATION
	TEST ATTENUATOR				to - 25.00	
PATH_LOSSES(23)	PATH LOSS - A23J1_4 TEST ATTENUATOR	dB	Float	0.01	-30.00 to - 20.00	732 - 735
PATH_LOSSES(24)	PATH LOSS - A24J1_2 TWO POSITION TEST SWITCH	dB	Float	0.01	-5.00 to -0.50	736 - 739
PATH_LOSSES(25)	PATH LOSS - A24J1_3 TWO POSITION TEST SWITCH	dB	Float	0.01	-5.00 to -0.50	740 - 743
PATH_LOSSES(26)	PATH LOSS - A24J1_4 TWO POSITION TEST SWITCH	dB	Float	0.01	-25.00 to - 15.00	744 - 747
PATH_LOSSES(27)	PATH LOSS - W103 COAX A24J3 TO DC2	dB	Float	0.01	-2.00 to 0.00	748 - 751
PATH_LOSSES(28)	PATH LOSS - TEST COAX TO RECEIVER PROTECT COUPLER	dB	Float	0.01	-5.20 to -0.20	752 - 755
PATH_LOSSES(29)	SPARE IN PATH_ LOSS ARRAY		Spare			756 - 759
PATH_LOSSES(30)	PATH LOSS - A5 ELEVATION ROTARY JOINT	dB	Float	0.01	-0.50 to -0.05	760 - 763
PATH_LOSSES(31)	PATH LOSS - WAVEGUIDE COUPLER TO ANTENNA	dB	Float	0.01	-1.00 to -0.10	764 - 767
PATH_LOSSES(32)	PATH LOSS - WG02 HARMONIC FILTER	dB	Float	0.01	-0.50 to -0.05	768 - 771
PATH_LOSSES(33)	PATH LOSS - WAVEGUIDE KLYSTRON TO SWITCH	dB	Float	0.01	-1.00 to -0.01	772 - 775
PATH_LOSSES(34)	PATH LOSS - 2A1A4 WAVEGUIDE CHANNEL AZIMUTH ROTARY JOINT	dB	Float	0.01	-0.50 to -0.05	776 - 779
PATH_LOSSES(35)	PATH LOSS - WG06 SPECTRUM FILTER	dB	Float	0.01	-0.50 to 0.00	780 - 783
PATH_LOSSES(36)	PATH LOSS - COAX TRANSMITTER RF DRIVE TO A22J2	dB	Float	0.01	-5.00 to -0.50	784 - 787
PATH_LOSSES(37)	PATH LOSS - WAVEGUIDE SWITCH TO AZIMUTH ROTARY JOINT	dB	Float	0.01	-1.80 to -0.05	788 - 791
PATH_LOSSES(38)	PATH LOSS - WAVEGUIDE SWITCH	dB	Float	0.01	-1.00 to -0.05	792 - 795

VARIABLE NAME	DESCRIPTION	UNITS	FORMAT	ACCURACY/ PRECISION	RANGE	BYTE LOCATION
PATH_LOSSES(39)	PATH LOSS - WG04 CIRCULATOR	dB	Float	0.01	-0.50 to -0.05	796 - 799
PATH_LOSSES (40)	PATH LOSS - A6 ARC DETECTOR	dB	Float	0.01	-0.50 to -0.01	800 - 803
PATH_LOSSES(41)	PATH LOSS - 1DC1 TRANSMITTER COUPLER STRAIGHT THRU	dB	Float	0.01	-0.10 to -0.01	804 - 807
PATH_LOSSES(42)	PATH LOSS - 1DC1 TRANSMITTER COUPLER COUPLING	dB	Float	0.01	-40.00 to - 20.00	808 - 811
PATH_LOSSES(43)	PATH LOSS - A33 PAD	dB	Float	0.01	-10.00 to 0.00	812 - 815
PATH_LOSSES(44)	PATH LOSS - COAX TRANSMITTER RF SAMPLE TO A33 PAD	dB	Float	0.01	-3.00 to 0.40	816 - 819
PATH_LOSSES(45)	PATH LOSS - A20J1_4 POWER SPLITTER	dB	Float	0.01	-8.00 to -4.00	820 - 823
PATH_LOSSES(46)	PATH LOSS - A20J1_3 POWER SPLITTER	dB	Float	0.01	-8.00 to -4.00	824 - 827
PATH_LOSSES(47)	PATH LOSS - A20J1_2 POWER SPLITTER	dB	Float	0.01	-8.00 to -4.00	828 - 831
PATH_LOSSES(48)	PATH LOSS - 2DC1 ANTENNA COUPLER STRAIGHT THRU	dB	Float	0.01	-0.10 to 0.01	832 - 835
PATH_LOSSES(49)	PATH LOSS - 2DC1 AND COUPLER COUPLING	dB	Float	0.01	-55.00 to - 40.00	836 - 839
PATH_LOSSES(50)	PATH LOSS - WAVEGUIDE AZIMUTH JOINT TO ELEVATION JOINT	dB	Float	0.01	-0.50 to -0.05	840 - 843
PATH_LOSSES(51)	PATH LOSS - 2AT1 ANTENNA COUPLER PAD	dB	Float	0.01	-9.00 to -2.50	844 - 847
PATH_LOSSES(52)	PATH LOSS - 1AT4 TRANSMITTER COUPLER PAD	dB	Float	0.01	-6.00 to 0.00	848 - 851
PATH_LOSSES(53)	PATH LOSS - A36 PAD	dB	Float	0.01	-7.00 to 0.00	852 - 855
PATH_LOSSES(54)	PATH LOSS - A34 PAD	dB	Float	0.01	-20.00 to 0.00	856 - 859
PATH_LOSSES(55)	PATH LOSS - T/R CIRCULATOR - PORT 2 TO PORT 3	dB	Float	0.01	-0.50 to 0.00	860 - 863
PATH_LOSSES(56)	PATH LOSS - 2FL1/2FL2 EMI FILTER	dB	Float	0.01	-0.60 to 0.00	864 - 867
PATH_LOSSES(57)	PATH LOSS -	dB	Float	0.01	-0.50 to	868 - 871

VARIABLE NAME	DESCRIPTION	UNITS	FORMAT	ACCURACY/ PRECISION	RANGE	BYTE LOCATION
	W900/W901 COAX TO EMI FILTER				0.00	
PATH_LOSSES(58)	PATH LOSS - AT4 3dB ATTENUATOR	dB	Float	0.01	-7.00 to 0.00	872 - 875
PATH_LOSSES(59)	PATH LOSS - IFD IF ANTI-ALIAS FILTER	dB	Float	0.01	-4.00 to 0.00	876 - 879
PATH_LOSSES(60)	PATH LOSS - A20J1_5 POWER SPLITTER	dB	Float	0.01	-8.00 to -4.00	880 - 883
PATH_LOSSES(61)	PATH LOSS - AT5 50dB ATTENUATOR	dB	Float	0.01	-53.00 to - 47.00	884 - 887
PATH_LOSSES(62)	PATH LOSS - AT7 BURST PULSE OPTIONAL ATTENUATOR	dB	Float	0.01	-8.00 to 0.00	888 - 891
PATH_LOSSES(63)	PATH LOSS - A39 RF_IF BURST MIXER	dB	Float	0.01	-11.00 to -6.00	892 - 995
PATH_LOSSES(64)	PATH LOSS - AR1 BURST IF AMPLIFIER	dB	Float	0.01	23.00 to 33.00	896 - 899
PATH_LOSSES(65)	PATH LOSS - IFD BURST ANTI-ALIAS FILTER	dB	Float	0.01	-4.00 to 0.00	900 - 903
PATH_LOSSES(66)	PATH LOSS - DC3 J1_3 6dB COUPLER, THROUGH	dB	Float	0.01	-3.00 to 0.00	904 - 907
PATH_LOSSES(67)	PATH LOSS - DC3 J1_2 6dB COUPLER, COUPLED	dB	Float	0.01	-10.00 to -5.00	908 - 911
PATH_LOSSES(68)	PATH LOSS - AT2+AT3 26dB COHO ATTENUATOR	dB	Float	0.01	-29.00 to - 23.00	912 - 915
PATH_LOSSES(69)	PATH LOSS - AT8 (10dB) ATTENUATOR	dB	Float	0.01	-11.00 to 0.0	916 - 919
CHAN_CAL_DIFF	NONCONTROLLING CHANNEL CALIBRATION DIFFERENCE	dB	Float	0.01	0.00 to 4.00	920-923
PATH_LOSSES(70 - 71)	SPARE LOCATIONS IN THE PATH_LOSSES ARRAY		Spares			924 - 927
LOG_AMP_FACTOR (1)	RF DETECTOR LOG AMPLIFIER SCALE FACTOR FOR CONVERTING RECEIVER TEST DATA	V/dBm	Float	0.0001	0.0010 to 0.1000	928 - 931
LOG_AMP_FACTOR (2)	RF DETECTOR LOG AMPLIFIER BIAS FOR CONVERTING	volts	Float	0.0001	0.0000 to 75.0000	932 - 935

VARIABLE NAME	DESCRIPTION	UNITS	FORMAT	ACCURACY/ PRECISION	RANGE	BYTE LOCATION
	RECEIVER TEST DATA					
SPARE	SPARE	N/A	Spare	N/A	N/A	936 - 939
RNSCALE(0)	RECEIVER NOISE NORMALIZATION (-1.0 deg to -0.5 deg)	ratio	Float	0.001	1.000 to 1.800	940 - 943
RNSCALE(1)	RECEIVER NOISE NORMALIZATION (-0.5 deg to 0.0 deg)	ratio	Float	0.001	1.000 to 1.800	944 - 947
RNSCALE(2)	RECEIVER NOISE NORMALIZATION (0.0 deg to 0.5 deg)	ratio	Float	0.001	1.000 to 1.800	948 - 951
RNSCALE(3)	RECEIVER NOISE NORMALIZATION (0.5 deg to 1.0 deg)	ratio	Float	0.001	1.000 to 1.800	952 - 955
RNSCALE(4)	RECEIVER NOISE NORMALIZATION (1.0 deg to 1.5 deg)	ratio	Float	0.001	1.000 to 1.800	956 - 959
RNSCALE(5)	RECEIVER NOISE NORMALIZATION (1.5 deg to 2.0 deg)	ratio	Float	0.001	1.000 to 1.800	960 - 963
RNSCALE(6)	RECEIVER NOISE NORMALIZATION (2.0 deg to 2.5 deg)	ratio	Float	0.001	1.000 to 1.800	964 - 967
RNSCALE(7)	RECEIVER NOISE NORMALIZATION (2.5 deg to 3.0 deg)	ratio	Float	0.001	1.000 to 1.800	968 - 971
RNSCALE(8)	RECEIVER NOISE NORMALIZATION (3.0 deg to 3.5 deg)	ratio	Float	0.001	1.000 to 1.800	972 - 975
RNSCALE(9)	RECEIVER NOISE NORMALIZATION (3.5 deg to 4.0 deg)	ratio	Float	0.001	1.000 to 1.800	976 - 979
RNSCALE(10)	RECEIVER NOISE NORMALIZATION (4.0 deg to 4.5 deg)	ratio	Float	0.001	1.000 to 1.800	980 - 983
RNSCALE(11)	RECEIVER NOISE NORMALIZATION (4.5 deg to 5.0 deg)	ratio	Float	0.001	1.000 to 1.800	984 - 987
RNSCALE(12)	RECEIVER NOISE NORMALIZATION (> 5.0 deg)	ratio	Float	0.001	1.000 to 1.800	988 - 991
ATMOS(0)	TWO WAY ATMOSPHERIC LOSS/KM (-1.0 deg to - 0.5 deg)	dB/km	Float	0.0001	-0.0200 to - 0.0020	992 - 995
ATMOS(1)	TWO WAY ATMOSPHERIC LOSS/KM (-0.5 deg to 0.0	dB/km	Float	0.0001	-0.0200 to - 0.0020	996 - 999

VARIABLE NAME	DESCRIPTION	UNITS	FORMAT	ACCURACY/ PRECISION	RANGE	BYTE LOCATION
	deg)					
ATMOS(2)	TWO WAY ATMOSPHERIC LOSS/KM (0.0 deg to 0.5 deg)	dB/km	Float	0.0001	-0.0200 to - 0.0020	1000 - 1003
ATMOS(3)	TWO WAY ATMOSPHERIC LOSS/KM (0.5 deg to 1.0 deg)	dB/km	Float	0.0001	-0.0200 to - 0.0020	1004 - 1007
ATMOS(4)	TWO WAY ATMOSPHERIC LOSS/KM (1.0 deg to 1.5 deg)	dB/km	Float	0.0001	-0.0200 to - 0.0020	1008 - 1011
ATMOS(5)	TWO WAY ATMOSPHERIC LOSS/KM (1.5 deg to 2.0 deg)	dB/km	Float	0.0001	-0.0200 to - 0.0020	1012 - 1015
ATMOS(6)	TWO WAY ATMOSPHERIC LOSS/KM (2.0 deg to 2.5 deg)	dB/km	Float	0.0001	-0.0200 to - 0.0020	1016 - 1019
ATMOS(7)	TWO WAY ATMOSPHERIC LOSS/KM (2.5 deg to 3.0 deg)	dB/km	Float	0.0001	-0.0200 to - 0.0020	1020 - 1023
ATMOS(8)	TWO WAY ATMOSPHERIC LOSS/KM (3.0 deg to 3.5 deg)	dB/km	Float	0.0001	-0.0200 to - 0.0020	1024 - 1027
ATMOS(9)	TWO WAY ATMOSPHERIC LOSS/KM (3.5 deg to 4.0 deg)	dB/km	Float	0.0001	-0.0200 to - 0.0020	1028 - 1031
ATMOS(10)	TWO WAY ATMOSPHERIC LOSS/KM (4.0 deg to 4.5 deg)	dB/km	Float	0.0001	-0.0200 to - 0.0020	1032 - 1035
ATMOS(11)	TWO WAY ATMOSPHERIC LOSS/KM (4.5 deg to 5.0 deg)	dB/km	Float	0.0001	-0.0200 to - 0.0020	1036 - 1039
ATMOS(12)	TWO WAY ATMOSPHERIC LOSS/KM (> 5.0 deg)	dB/km	Float	0.0001	-0.0200 to - 0.0020	1040 - 1043
EL_INDEX(0)	BYPASS MAP GENERATION ELEVATION ANGLE (0)	degree s	Float	0.001	-1.000 to 45.000	1044 - 1047
EL_INDEX(1)	BYPASS MAP	degree	Float	0.001	-1.000	1048 - 1051

VARIABLE NAME	DESCRIPTION	UNITS	FORMAT	ACCURACY/ PRECISION	RANGE	BYTE LOCATION
	GENERATION ELEVATION ANGLE (1)	s			to 45.000	
EL_INDEX(2)	BYPASS MAP GENERATION ELEVATION ANGLE (2)	degree s	Float	0.001	-1.000 to 45.000	1052 - 1055
EL_INDEX(3)	BYPASS MAP GENERATION ELEVATION ANGLE (3)	degree s	Float	0.001	-1.000 to 45.000	1056 - 1059
EL_INDEX(4)	BYPASS MAP GENERATION ELEVATION ANGLE (4)	degree s	Float	0.001	-1.000 to 45.000	1060 - 1063
EL_INDEX(5)	BYPASS MAP GENERATION ELEVATION ANGLE (5)	degree s	Float	0.001	-1.000 to 45.000	1064 - 1067
EL_INDEX(6)	BYPASS MAP GENERATION ELEVATION ANGLE (6)	degree s	Float	0.001	-1.000 to 45.000	1068 - 1071
EL_INDEX(7)	BYPASS MAP GENERATION ELEVATION ANGLE (7)	degree s	Float	0.001	-1.000 to 45.000	1072 - 1075
EL_INDEX(8)	BYPASS MAP GENERATION ELEVATION ANGLE (8)	degree s	Float	0.001	-1.000 to 45.000	1076 - 1079
EL_INDEX(9)	BYPASS MAP GENERATION ELEVATION ANGLE (9)	degree s	Float	0.001	-1.000 to 45.000	1080 - 1083
EL_INDEX(10)	BYPASS MAP GENERATION ELEVATION ANGLE (10)	degree s	Float	0.001	-1.000 to 45.000	1084 - 1087
EL_INDEX(11)	BYPASS MAP GENERATION ELEVATION ANGLE (11)	degree s	Float	0.001	-1.000 to 45.000	1088 - 1091
TFREQ_MHZ	TRANSMITTER FREQUENCY	Mhz	Integer	1	2700 to 3000	1092 - 1095
BASE_DATA_TCN	POINT CLUTTER SUPPRESSION THRESHOLD (TCN)	dB	Float	0.1	0.0 to 30.0	1096 - 1099
REFL_DATA_TOVE R	RANGE UNFOLDING OVERLAY THRESHOLD (TOVER)	dB	Float	0.1	0.0 to 20.0	1100 - 1103
TAR_DBZ0_LP	TARGET SYSTEM CALIBRATION (dBZ0) FOR LONG PULSE	dBZ	Float	0.01	-45.00 to - 65.00	1104 - 1107
CANCGAIN	TWO PULSE CANCELLER GAIN	dB	Float	0.1	1.0 to 10.0	1108 - 1111
RCV_UPPER	RECEIVER NOISE	ratio	Float	0.0000001	1.0E-6	1112 - 1115

VARIABLE NAME	DESCRIPTION	UNITS	FORMAT	ACCURACY/ PRECISION	RANGE	BYTE LOCATION
	UPPER LIMIT				to 1.0E-5	
RCV_LOWER	RECEIVER NOISE LOWER LIMIT	ratio	Float	0.0000001	0.5E-6 to 0.5E-5	1116 - 1119
LX_LP	MATCHED FILTER LOSS FOR LONG PULSE	dB	Float	0.01	-3.00 to 0.00	1120 - 1123
LX_SP	MATCHED FILTER LOSS FOR SHORT PULSE	dB	Float	0.01	-3.00 to 0.00	1124 - 1127
METEOR_PARAM	/K/**2 HYDROMETEOR REFRACTIVITY FACTOR	ratio	Float	0.01	0.10 to 1.10	1128 - 1131
BEAMWIDTH	ANTENNA BEAMWIDTH	degree s	Float	0.01	0.80 to 1.00	1132 - 1135
ANTENNA_GAIN	ANTENNA GAIN INCLUDING RADOME	dB	Float	0.01	43.00 to 47.00	1136 - 1139
RFD_DEGRADE_LI MIT	RF DRIVE TEST TARGET DEGRADE LIMIT	dB	Float	0.1	1.0 to 10.0	1140 - 1143
VEL_MAINT_LIMIT	VELOCITY CHECK DELTA MAINTENANCE LIMIT	m/sec	Float	0.1	0.5 to 2.0	1144 - 1147
WTH_MAINT_LIMI T	SPECTRUM WIDTH CHECK DELTA MAINTENANCE LIMIT	m/sec	Float	0.1	0.5 to 2.0	1148 - 1151
VEL_DEGRAD_LIM IT	VELOCITY CHECK DELTA DEGRADE LIMIT	m/sec	Float	0.1	0.5 to 2.0	1152 - 1155
WTH_DEGRAD_LI MIT	SPECTRUM WIDTH CHECK DELTA DEGRADE LIMIT	m/sec	Float	0.1	0.5 to 2.0	1156 - 1159
NOISETEMP_DGRA D_LIMIT	SYSTEM NOISE TEMPERATURE DEGRADE LIMIT	degree s Kelvin	Float	0.1	350.0 to 1200.0	1160 - 1163
NOISETEMP_MAIN T_LIMIT	SYSTEM NOISE TEMPERATURE MAINTENANCE LIMIT	degree s Kelvin	Float	0.1	300.0 to 1200.0	1164 - 1167
spare						1168 - 1171
spare						1172 - 1175
KLY_DEGRADE_LI MIT	KLYSTRON OUTPUT TARGET CONSISTENCY DEGRADE LIMIT	dB	Float	0.1	1.0 to 10.0	1176 - 1179
TS_COHO	COHO POWER AT A1J4	dBm	Float	0.01	23.00 to 29.00	1180 - 1183
TS_CW	CW TEST SIGNAL AT	dBm	Float	0.01	20.00 to	1184 - 1187

VARIABLE NAME	DESCRIPTION	UNITS	FORMAT	ACCURACY/ PRECISION	RANGE	BYTE LOCATION
	A22J3				30.00	
TS_RF_SP	RF DRIVE TEST SIGNAL SHORT PULSE AT 3A5J4	dBm	Float	0.01	19.00 to 28.00	1188 - 1191
TS_RF_LP	RF DRIVE TEST SIGNAL LONG PULSE AT 3A5J4	dBm	Float	0.01	19.00 to 28.00	1192 - 1195
TS_STALO	STALO POWER AT A5J2	dBm	Float	0.01	12.00 to 18.00	1196 - 1199
TS_NOISE	RF NOISE TEST SIGNAL EXCESS NOISE RATIO AT A22J4	dB	Float	0.01	45.00 to 80.00	1200 - 1203
XMTR_PEAK_PWR_ HIGH_LIMIT	MAXIMUM TRANSMITTER PEAK POWER ALARM LEVEL	kW	Float	0.01	500.00 to 950.00	1204 - 1207
XMTR_PEAK_PWR_ LOW_LIMIT	MINIMUM TRANSMITTER PEAK POWER ALARM LEVEL	kW	Float	0.01	200.00 to 700.00	1208 - 1211
DBZ0_DELTA_LIMI T	LIMIT FOR DIFFERENCE BETWEEN COMPUTED AND TARGET SYSTEM CALIBRATION COEFFICIENT (dBZ0)	dB	Float	0.1	1.0 to 10.0	1212 - 1215
THRESHOLD1	BYPASS MAP GENERATOR NOISE THRESHOLD	dB	Float	0.1	-6.0 to 10.0	1216 - 1219
THRESHOLD2	BYPASS MAP GENERATOR REJECTION RATIO THRESHOLD	dB	Float	0.1	0.0 to 10.0	1220 - 1223
CLUT_SUPP_DGRA D_LIM	CLUTTER SUPPRESSION DEGRADE LIMIT	dB	Float	0.1	35.0 to 50.0	1224 - 1227
CLUT_SUPP_MAIN T_LIM	CLUTTER SUPPRESSION MAINTENANCE LIMIT	dB	Float	0.1	20.0 to 50.0	1228 - 1231
RANGE0_VALUE	TRUE RANGE AT START OF FIRST RANGE BIN	km	Float	0.001	0.000 to 3.000	1232 - 1235
XMTR_PWR_MTR_S CALE	SCALE FACTOR USED TO CONVERT TRANSMITTER POWER BYTE DATA TO WATTS	watts per LSB	Float	0.0000001	0.00001 00 to 0.00150 00	1236 - 1239
N_SMOOTH	RECEIVER NOISE CALIBRATION SMOOTHING	ratio	Float	0.01	0.05 to 1.00	1240 - 1243

VARIABLE NAME	DESCRIPTION	UNITS	FORMAT	ACCURACY/ PRECISION	RANGE	BYTE LOCATION
	COEFFICIENT					
TAR_DBZ0_SP	TARGET SYSTEM CALIBRATION (dBZ0) FOR SHORT PULSE	dBZ	Float	0.01	-38.00 to - 58.00	1244 - 1247
SPARE	SPARE	N/A	Spare	N/A	N/A	1248 - 1251
DELTAPRF	SITE PRF SET (A=1, B=2, C=3, D=4, E=5)	N/A	Integer	1	1 to 5	1252 - 1255
SPARE	SPARE		Integer	1	4 to 12	1256 - 1259
SPARE	SPARE		Integer	1	4 to 12	1260 - 1263
TAU_SP	PULSE WIDTH OF TRANSMITTER OUTPUT IN SHORT PULSE	nsec	Integer	1	1000 to 2000	1264 - 1267
TAU_LP	PULSE WIDTH OF TRANSMITTER OUTPUT IN LONG PULSE	nsec	Integer	1	3000 to 6000	1268 - 1271
NC_DEAD_VALUE	NUMBER OF 1/4 KM BINS OF CORRUPTED DATA AT END OF SWEEP	bins	Integer	1	1 to 10	1272 - 1275
TAU_RF_SP	RF DRIVE PULSE WIDTH IN SHORT PULSE	nsec	Integer	1	500 to 2000	1276 - 1279
TAU_RF_LP	RF DRIVE PULSE WIDTH IN LONG PULSE MODE	nsec	Integer	1	3000 to 6000	1280 - 1283
SEG1LIM	CLUTTER MAP BOUNDARY ELEVATION BETWEEN SEGMENTS 1 & 2	degree s	Float	0.01	0.50 - 3.00	1284 - 1287
SLATSEC	SITE LATITUDE - SECONDS	second s	Float	0.0001	0.0000 to 59.9999	1288 - 1291
SLONSEC	SITE LONGITUDE - SECONDS	second s	Float	0.0001	0.0000 to 59.9999	1292 - 1295
SPARE	SPARE					1296 - 1299
SLATDEG	SITE LATITUDE - DEGREES	degree s	Integer	1	0 to 89	1300 - 1303
SLATMIN	SITE LATITUDE - MINUTES	minute s	Integer	1	0 to 59	1304 - 1307
SLONDEG	SITE LONGITUDE - DEGREES	degree s	Integer	1	0 to 179	1308 - 1311
SLONMIN	SITE LONGITUDE - MINUTES	minute s	Integer	1	0 to 59	1312 - 1315
SLATDIR	SITE LATITUDE -	N/A	Char	N/A	N or S	1316 - 1319

VARIABLE NAME	DESCRIPTION	UNITS	FORMAT	ACCURACY/ PRECISION	RANGE	BYTE LOCATION
	DIRECTION					
SLONDIR	SITE LONGITUDE - DIRECTION	N/A	Char	N/A	E or W	1320 - 1323
VC_NDX	INDEX TO CURRENT VOLUME COVERAGE PATTERN		Integer			1324 - 1327
VCPAT11	VOLUME COVERAGE PATTERN NUMBER 11 DEFINITION	N/A	vcp_ts	N/A		1328 - 2499
VCPAT21	VOLUME COVERAGE PATTERN NUMBER 21 DEFINITION	N/A	vcp_ts	N/A		2500 - 3671
VCPAT31	VOLUME COVERAGE PATTERN NUMBER 31 DEFINITION	N/A	vcp_ts	N/A		3672 - 4843
VCPAT32	VOLUME COVERAGE PATTERN NUMBER 32 DEFINITION	N/A	vcp_ts	N/A		4844 - 6015
VCPAT300	VOLUME COVERAGE PATTERN NUMBER 300 DEFINITION	N/A	vcp_ts	N/A		6016 - 7187
VCPAT301	VOLUME COVERAGE PATTERN NUMBER 301 DEFINITION	N/A	vcp_ts	N/A		7188 - 8359
AZ_CORRECTION_ FACTOR	AZIMUTH BORESIGHT CORRECTION FACTOR	degree s	Float	0.001	-1.000 to 1.000	8360 - 8363
EL_CORRECTION_ FACTOR	ELEVATION BORESIGHT CORRECTION FACTOR	degree s	Float	0.001	-1.000 to 1.000	8364 - 8367
SITE_NAME	SITE NAME DESIGNATION		Char	N/A		8368 - 8371
ant_manual_setup.ie lmin	MINIMUM ELEVATION ANGLE	degree s	Integer	1	-7281 to 7281	8372 - 8375
ant_manual_setup.ie lmax	MAXIMUM ELEVATION ANGLE	degree s	Integer	1	0 to 40049	8376 - 8379
ant_manual_setup.fa zvelmax	MAXIMUM AZIMUTH VELOCITY	degree s/secon d	Integer	1	0 to 100	8380 - 8383
ant_manual_setup.fe lvelmax	MAXIMUM ELEVATION VELOCITY	degree s/secon d	Integer	1	0 to 48	8384 - 8387
ant_manual_setup.ig nd_hgt	SITE GROUND HEIGHT (ABOVE SEA LEVEL)	meters	Integer	1	-100 to 12000	8388 - 8391
ant_manual_setup.ir ad_hgt	SITE RADAR HEIGHT (ABOVE GROUND)	meters	Integer	1	0 to 1000	8392 - 8395
spare						8396 - 8695
rvp8NV.iwaveguide_	WAVEGUIDE LENGTH		Integer	1	0 to	8696 - 8699

VARIABLE NAME	DESCRIPTION	UNITS	FORMAT	ACCURACY/ PRECISION	RANGE	BYTE LOCATION
length					1000	
SPARE	SPARE	N/A	Spare	N/A	N/A	8700 - 8743
VEL_DATA_TOVER	VELOCITY UNFOLDING OVERLAY THRESHOLD	dB	Float	0.1	0.0 to 20.0	8744 - 8747
WIDTH_DATA_TOVER	WDITH UNFOLDING OVERLAY THRESHOLD	dB	Float	0.1	0.0 to 20.0	8748 - 8751
spares						8752 - 8763
Doppler_range_start	START RANGE FOR FIRST DOPPLER RADIAL	km	Float	0.001	-32.768 to 32.768	8764 - 8767
max_el_index	The maximum index for the el_index parameters		Integer	1	0 to 11	8768 - 8771
SEG2LIM	CLUTTER MAP BOUNDARY ELEVATION BETWEEN SEGMENTS 2 & 3.	degree s	Float	0.01	0.80 - 4.50	8772 - 8775
SEG3LIM	CLUTTER MAP BOUNDARY ELEVATION BETWEEN SEGMENTS 3 & 4.	degree s	Float	0.01	1.00 - 6.00	8776 - 8779
SEG4LIM	CLUTTER MAP BOUNDARY ELEVATION BETWEEN SEGMENTS 4 & 5.	degree s	Float	0.01	1.00 - 8.00	8780 - 8783
NBR_EL_SEGMENT S	NUMBER OF ELEVATION SEGMENTS IN ORDA CLUTTER MAP.	count	Integer	1	1 - 5	8784 - 8787
NOISE_LONG	RECEIVER NOISE, LONG PULSE	dBm	Float	0.1	-95.0 to -80.0	8788 - 8791
ANT_NOISE_TEMP	ANTENNA NOISE TEMPERATURE	K	Float	1	30 to 200	8792 - 8795
NOISE_SHORT	RECEIVER NOISE, SHORT PULSE	dBm	Float	0.1	-90.0 to -75	8796 - 8799
NOISE_TOLERANCE	RECEIVER NOISE TOLERANCE	dB	Float	0.1	0.0 to 6.0	8800 - 8803
MIN_DYN_RANGE	MINIMUM DYNAMIC RANGE	dB	Float	0.1	85.0 to 95.0	8804 - 8807
spares_4_the_future	n/a	165	Spares			8808 - 9467

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Table XV-B. Two Way Atmospheric Loss

Elevation Sector		Atmospheric Attenuation (dB/km)	
Angles		Range	Defaults
1	-1.0 deg to -0.5 deg	-0.0200 to -0.0020	-0.0150
2	-0.5 deg to 0.0 deg	-0.0200 to -0.0020	-0.0150
3	0.0 deg to 0.5 deg	-0.0200 to -0.0020	-0.0120
4	0.5 deg to 1.0 deg	-0.0200 to -0.0020	-0.0110
5	1.0 deg to 1.5 deg	-0.0200 to -0.0020	-0.0100
6	1.5 deg to 2.0 deg	-0.0200 to -0.0020	-0.0090
7	2.0 deg to 2.5 deg	-0.0200 to -0.0020	-0.0080
8	2.5 deg to 3.0 deg	-0.0200 to -0.0020	-0.0070
9	3.0 deg to 3.5 deg	-0.0200 to -0.0020	-0.0060
10	3.5 deg to 4.0 deg	-0.0200 to -0.0020	-0.0060
11	4.0 deg to 4.5 deg	-0.0200 to -0.0020	-0.0050
12	4.5 deg to 5.0 deg	-0.0200 to -0.0020	-0.0050
13	>5.0 deg	-0.0200 to -0.0020	-0.0050

3.2.4.6.1

Table XV-C Default VCP Definition

VARIABLE NAME	UNITS	FORMAT	ACCURACY/PRECISION	RANGE	DEFAULT VCP 11 VALUE	DEFAULT VCP 21 VALUE	DEFAULT VCP 31 VALUE	DEFAULT VCP 32 VALUE	DEFAULT VCP 300 VALUE	DEFAULT VCP 301 VALUE
Message Size	Halfwords	SSInteger	1	23 to 594	586	586	586	586	586	586
Pattern Type	n/a	Integer Code	n/a	see Table XI	2	2	2	2	2	2
Pattern Number	n/a	SInteger	1	see Table XI	11	21	31	32	300	301
Number of Elevation Cuts	n/a	SInteger	1	1 to 25	16	11	8	7	4	4
Clutter Map Group Number	n/a	SInteger	1	1 to 2	1	1	1	1	1	1
Doppler Velocity Resolution / Pulse Width	n/a	Integer Code	n/a	n/a	0x202	0x0202	0x0204	0x0202	0x0202	0x0204
Spares	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Elevation Cut 1										
Elevation Angle		see Table III-A			0x0058	0x0058	0x0058	0x0058	0x0058	0x0058
Channel Configuration / Waveform Type	n/a	Integer Code	n/a	see Table XI	1	1	1	1	1	1
Surveillance PRF Number	n/a	SInteger	1	1 to 8	1	1	1	1	1	1
Surveillance PRF Pulse Count/Radiation	n/a	SInteger	1	1 to 999	17	28	63	64	28	28
Azimuth Rate		see Table XI-D			0x3520	0x2040	0x0E58	0x0E20	0x2040	0x2040
Reflectivity Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x0010	0x0010	0x0000	0x0004	0xFFFF4	0xFFFF4
Velocity Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x0010	0x0010	0x0000	0x0004	0xFFFF4	0xFFFF4
Spectrum Width	dB	SInteger, scaled	1/8 dB	-12.0 to	0x0010	0x0010	0x0000	0x0004	0xFFFF4	0xFFFF4

VARIABLE NAME	UNITS	FORMAT	ACCURACY/PRECISION	RANGE	DEFAULT VCP 11 VALUE	DEFAULT VCP 21 VALUE	DEFAULT VCP 31 VALUE	DEFAULT VCP 32 VALUE	DEFAULT VCP 300 VALUE	DEFAULT VCP 301 VALUE
Threshold				+20.0						
Spares	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 1)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 1)	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radiation (sector 1)	n/a	SInteger	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 2)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 2)	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radiation (sector 2)	n/a	SInteger	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 3)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 3)	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radiation (sector 3)	n/a	SInteger	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Elevation Cut 2										
Elevation Angle		see Table III-A			0x0058	0x0058	0x0058	0x0058	0x0058	0X0058
Channel Configuration / Waveform Type	n/a	Integer Code	n/a	see Table XI	2	2	2	2	2	2

VARIABLE NAME	UNITS	FORMAT	ACCURACY/PRECISION	RANGE	DEFAULT VCP 11 VALUE	DEFAULT VCP 21 VALUE	DEFAULT VCP 31 VALUE	DEFAULT VCP 32 VALUE	DEFAULT VCP 300 VALUE	DEFAULT VCP 301 VALUE
Surveillance PRF Number	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Surveillance PRF Pulse Count/Radiation	n/a	SInteger	1	1 to 999	0	0	0	0	0	0
Azimuth Rate		see Table XI-D			0x36B0	0x2050	0x0E68	0x0CF0	0x2050	0x2050
Reflectivity Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x001C	0x001C	0x0000	0x0004	0x0021	0x0021
Velocity Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x001C	0x001C	0x0000	0x0004	0x0021	0x0021
Spectrum Width Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x001C	0x001C	0x0000	0x0004	0x0021	0x0021
Spares	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 1)		see Table III-A			0	0	0	0	0x9558	0x958
Doppler PRF Number (sector 1)	n/a	SInteger	1	1 to 8	5	5	2	5	5	5
Doppler PRF Pulse Count/Radiation (sector 1)	n/a	SInteger	1	1 to 999	52	88	87	220	88	88
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 2)		see Table III-A			0	0	0	0	0xEE38	0xEE38
Doppler PRF Number (sector 2)	n/a	SInteger	1	1 to 8	0	0	0	0	5	5
Doppler PRF Pulse Count/Radiation (sector 2)	n/a	SInteger	1	1 to 999	0	0	0	0	88	88
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 3)		see Table III-A			0	0	0	0	0	0
Doppler	n/a	SInteger	1	1 to 8	0	0	0	0	0	0

VARIABLE NAME	UNITS	FORMAT	ACCURACY/PRECISION	RANGE	DEFAULT VCP 11 VALUE	DEFAULT VCP 21 VALUE	DEFAULT VCP 31 VALUE	DEFAULT VCP 32 VALUE	DEFAULT VCP 300 VALUE	DEFAULT VCP 301 VALUE
PRF Number (sector 3)		r								
Doppler PRF Pulse Count/Radiation (sector 3)	n/a	SInteger	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Elevation Cut 3										
Elevation Angle		see Table III-A			0x0108	0x0108	0x0110	0x0110	0x01B8	0x01B8
Channel Configuration / Waveform Type	n/a	Integer Code	n/a	see Table XI	1	1	1	1	4	4
Surveillance PRF Number	n/a	SInteger	1	1 to 8	1	1	1	1	2	2
Surveillance PRF Pulse Count/Radiation	n/a	SInteger	1	1 to 999	16	28	63	64	8	8
Azimuth Rate		see Table XI-D			0x3870	0x2040	0x0E58	0x0E20	0x1FD0	0x1FD0
Reflectivity Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x0010	0x0010	0x0000	0x0004	0x0019	0x0019
Velocity Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x0010	0x0010	0x0000	0x0004	0x0019	0x0019
Spectrum Width Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x0010	0x0010	0x0000	0x0004	0x0019	0x0019
Spares	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 1)		see Table III-A			0	0	0	0	0x9558	0x9558
Doppler PRF Number (sector 1)	n/a	SInteger	1	1 to 8	0	0	0	0	5	5
Doppler PRF Pulse Count/Radiation	n/a	SInteger	1	1 to 999	0	0	0	0	70	70

VARIABLE NAME	UNITS	FORMAT	ACCURACY/ PRECISION	RANGE	DEFAULT VCP 11 VALUE	DEFAULT VCP 21 VALUE	DEFAULT VCP 31 VALUE	DEFAULT VCP 32 VALUE	DEFAULT VCP 300 VALUE	DEFAULT VCP 301 VALUE
l (sector 1)										
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 2)		see Table III-A			0	0	0	0	0xEE38	0xEE38
Doppler PRF Number (sector 2)	n/a	SIntege r	1	1 to 8	0	0	0	0	5	5
Doppler PRF Pulse Count/Radia l (sector 2)	n/a	SIntege r	1	1 to 999	0	0	0	0	70	70
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 3)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 3)	n/a	SIntege r	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radia l (sector 1)	n/a	SIntege r	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Elevation Cut 4										
Elevation Angle		see Table III-A			0x0108	0x0108	0x0110	0x0110	0x0708	0x0708
Channel Configuratio n / Waveform Type	n/a	Integer Code	n/a	see Table XI	2	2	2	2	3	3
Surveillance PRF Number	n/a	SIntege r	1	1 to 8	0	0	0	0	0	0
Surveillance PRF Pulse Count/Radia l	n/a	SIntege r	1	1 to 999	0	0	0	0	0	0
Azimuth Rate		see Table XI-D			0x36B0	0x2050	0x0E68	0x0CF0	0x2890	0x2890
Reflectivity Threshold	dB	SIntege r, scaled	1/8 dB	-12.0 to	0x001C	0x001C	0x0000	0x0004	0x0019	0x0019

VARIABLE NAME	UNITS	FORMAT	ACCURACY/PRECISION	RANGE	DEFAULT VCP 11 VALUE	DEFAULT VCP 21 VALUE	DEFAULT VCP 31 VALUE	DEFAULT VCP 32 VALUE	DEFAULT VCP 300 VALUE	DEFAULT VCP 301 VALUE
				+20.0						
Velocity Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x001C	0x001C	0x0000	0x0004	0x0019	0x0019
Spectrum Width Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x001C	0x001C	0x0000	0x0004	0x0019	0x0019
Spares	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 1)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 1)	n/a	SInteger	1	1 to 8	5	5	2	5	7	7
Doppler PRF Pulse Count/Radiation (sector 1)	n/a	SInteger	1	1 to 999	52	88	87	220	82	82
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 2)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 2)	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radiation (sector 2)	n/a	SInteger	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 3)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 3)	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radiation (sector 3)	n/a	SInteger	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Elevation Cut 5										
Elevation Angle		see Table			0x01B8	0x01B8	0x01C8	0x01C8	0x0000	0x0000

VARIABLE NAME	UNITS	FORMAT	ACCURACY/PRECISION	RANGE	DEFAULT VCP 11 VALUE	DEFAULT VCP 21 VALUE	DEFAULT VCP 31 VALUE	DEFAULT VCP 32 VALUE	DEFAULT VCP 300 VALUE	DEFAULT VCP 301 VALUE
		III-A								
Channel Configuration / Waveform Type	n/a	Integer Code	n/a	see Table XI	4	4	1	4	0	0
Surveillance PRF Number	n/a	SInteger	1	1 to 8	1	2	1	2	0	0
Surveillance PRF Pulse Count/Radiation	n/a	SInteger	1	1 to 999	6	8	63	11	0	0
Azimuth Rate		see Table XI-D			0x2DD8	0x1FD0	0x0E58	0x0B90	0x0000	0x0000
Reflectivity Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x001C	0x001C	0x0000	0x0008	0x0000	0x0000
Velocity Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x001C	0x001C	0x0000	0x0008	0x0000	0x0000
Spectrum Width Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x001C	0x001C	0x0000	0x0008	0x0000	0x0000
Spares	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 1)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 1)	n/a	SInteger	1	1 to 8	5	5	0	5	0	0
Doppler PRF Pulse Count/Radiation (sector 1)	n/a	SInteger	1	1 to 999	41	70	0	220	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 2)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 2)	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radiation	n/a	SInteger	1	1 to 999	0	0	0	0	0	0

VARIABLE NAME	UNITS	FORMAT	ACCURACY/ PRECISION	RANGE	DEFAULT VCP 11 VALUE	DEFAULT VCP 21 VALUE	DEFAULT VCP 31 VALUE	DEFAULT VCP 32 VALUE	DEFAULT VCP 300 VALUE	DEFAULT VCP 301 VALUE
l (sector 2)										
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 3)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 3)	n/a	SIntege r	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radia l (sector 3)	n/a	SIntege r	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Elevation Cut 6										
Elevation Angle		see Table III-A			0x0260	0x0260	0x01C8	0x0280	0x0000	0x0000
Channel Configuratio n / Waveform Type	n/a	Integer Code	n/a	see Table XI	4	4	2	4	0	0
Surveillance PRF Number	n/a	SIntege r	1	1 to 8	2	2	0	2	0	0
Surveillance PRF Pulse Count/Radia l	n/a	SIntege r	1	1 to 999	6	8	0	11	0	0
Azimuth Rate		see Table XI-D			0x32E8	0x1FD0	0x0E68	0x0B90	0x0000	0x0000
Reflectivity Threshold	dB	SIntege r, scaled	1/8 dB	-12.0 to +20.0	0x001C	0x001C	0x0000	0x0008	0x0000	0x0000
Velocity Threshold	dB	SIntege r, scaled	1/8 dB	-12.0 to +20.0	0x001C	0x001C	0x0000	0x0008	0x0000	0x0000
Spectrum Width Threshold	dB	SIntege r, scaled	1/8 dB	-12.0 to +20.0	0x001C	0x001C	0x0000	0x0008	0x0000	0x0000
Spares	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 1)		see Table III-A			0	0	0	0	0	0
Doppler	n/a	SIntege	1	1 to 8	5	5	2	5	0	0

VARIABLE NAME	UNITS	FORMAT	ACCURACY/PRECISION	RANGE	DEFAULT VCP 11 VALUE	DEFAULT VCP 21 VALUE	DEFAULT VCP 31 VALUE	DEFAULT VCP 32 VALUE	DEFAULT VCP 300 VALUE	DEFAULT VCP 301 VALUE
PRF Number (sector 1)		r								
Doppler PRF Pulse Count/Radiation (sector 1)	n/a	SInteger	1	1 to 999	41	70	87	220	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 2)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 2)	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radiation (sector 2)	n/a	SInteger	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 3)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 3)	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radiation (sector 3)	n/a	SInteger	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Elevation Cut 7										
Elevation Angle		see Table III-A			0x0310	0x0310	0x0280	0x0330	0x0000	0x0000
Channel Configuration / Waveform Type	n/a	Integer Code	n/a	see Table XI	4	4	3	4	0	0
Surveillance PRF Number	n/a	SInteger	1	1 to 8	2	2	0	2	0	0
Surveillance PRF Pulse Count/Radiation	n/a	SInteger	1	1 to 999	6	8	0	11	0	0

VARIABLE NAME	UNITS	FORMAT	ACCURACY/PRECISION	RANGE	DEFAULT VCP 11 VALUE	DEFAULT VCP 21 VALUE	DEFAULT VCP 31 VALUE	DEFAULT VCP 32 VALUE	DEFAULT VCP 300 VALUE	DEFAULT VCP 301 VALUE
1										
Azimuth Rate		see Table XI-D			0x32E8	0x1FD0	0x0E68	0x0B90	0x0000	0x0000
Reflectivity Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x001C	0x001C	0x0000	0x0008	0x0000	0x0000
Velocity Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x001C	0x001C	0x0000	0x0008	0x0000	0x0000
Spectrum Width Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x001C	0x001C	0x0000	0x0008	0x0000	0x0000
Spares	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 1)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 1)	n/a	SInteger	1	1 to 8	5	5	2	5	0	0
Doppler PRF Pulse Count/Radiation (sector 1)	n/a	SInteger	1	1 to 999	41	70	87	220	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 2)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 2)	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radiation (sector 2)	n/a	SInteger	1	1	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 3)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 3)	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radiation	n/a	SInteger	1	1 to 999	0	0	0	0	0	0

VARIABLE NAME	UNITS	FORMAT	ACCURACY/PRECISION	RANGE	DEFAULT VCP 11 VALUE	DEFAULT VCP 21 VALUE	DEFAULT VCP 31 VALUE	DEFAULT VCP 32 VALUE	DEFAULT VCP 300 VALUE	DEFAULT VCP 301 VALUE
l (sector 3)										
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Elevation Cut 8										
Elevation Angle		see Table III-A			0x03B8	0x0448	0x0330	0x0000	0x0000	0x0000
Channel Configuration / Waveform Type	n/a	Integer Code	n/a	see Table XI	4	4	3	0	0	0
Surveillance PRF Number	n/a	SInteger	1	1 to 8	3	3	0	0	0	0
Surveillance PRF Pulse Count/Radiation	n/a	SInteger	1	1 to 999	10	12	0	0	0	0
Azimuth Rate		see Table XI-D			0x31A8	0x1FD0	0x0E68	0x0000	0x0000	0x0000
Reflectivity Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x001C	0x001C	0x0000	0x0000	0x0000	0x0000
Velocity Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x001C	0x001C	0x0000	0x0000	0x0000	0x0000
Spectrum Width Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x001C	0x001C	0x0000	0x0000	0x0000	0x0000
Spares	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 1)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 1)	n/a	SInteger	1	1 to 8	5	5	2	0	0	0
Doppler PRF Pulse Count/Radiation (sector 1)	n/a	SInteger	1	1 to 999	41	70	87	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 2)		see Table III-A			0	0	0	0	0	0
Doppler	n/a	SInteger	1	1 to 8	0	0	0	0	0	0

VARIABLE NAME	UNITS	FORMAT	ACCURACY/PRECISION	RANGE	DEFAULT VCP 11 VALUE	DEFAULT VCP 21 VALUE	DEFAULT VCP 31 VALUE	DEFAULT VCP 32 VALUE	DEFAULT VCP 300 VALUE	DEFAULT VCP 301 VALUE
PRF Number (sector 2)		r								
Doppler PRF Pulse Count/Radiation (sector 2)	n/a	SInteger	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 3)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 3)	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radiation (sector 3)	n/a	SInteger	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Elevation Cut 9										
Elevation Angle		see Table III-A			0x0468	0x0708	0x0000	0x0000	0x0000	0x0000
Channel Configuration / Waveform Type	n/a	Integer Code	n/a	see Table XI	4	3	0	0	0	0
Surveillance PRF Number	n/a	SInteger	1	1 to 8	3	0	0	0	0	0
Surveillance PRF Pulse Count/Radiation	n/a	SInteger	1	1 to 999	10	0	0	0	0	0
Azimuth Rate		see Table XI-D			0x31B0	0x2890	0x0000	0x0000	0x0000	0x0000
Reflectivity Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x001C	0x001C	0x0000	0x0000	0x0000	0x0000
Velocity Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x001C	0x001C	0x0000	0x0000	0x0000	0x0000
Spectrum Width	dB	SInteger, scaled	1/8 dB	-12.0 to	0x001C	0x001C	0x0000	0x0000	0x0000	0x0000

VARIABLE NAME	UNITS	FORMAT	ACCURACY/ PRECISION	RANGE	DEFAULT VCP 11 VALUE	DEFAULT VCP 21 VALUE	DEFAULT VCP 31 VALUE	DEFAULT VCP 32 VALUE	DEFAULT VCP 300 VALUE	DEFAULT VCP 301 VALUE
Threshold				+20.0						
Spares	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 1)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 1)	n/a	SIntege r	1	1 to 8	5	7	0	0	0	0
Doppler PRF Pulse Count/Radia l (sector 1)	n/a	SIntege r	1	1 to 999	41	82	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 2)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 2)	n/a	SIntege r	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radia l (sector 2)	n/a	SIntege r	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 3)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 3)	n/a	SIntege r	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radia l (sector 3)	n/a	SIntege r	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Elevation Cut 10										
Elevation Angle		see Table III-A			0x0558	0x0A60	0x0000	0x0000	0x0000	0x0000
Channel Configuratio n / Waveform Type		Integer Code	n/a	see Table XI	3	3	0	0	0	0

VARIABLE NAME	UNITS	FORMAT	ACCURACY/PRECISION	RANGE	DEFAULT VCP 11 VALUE	DEFAULT VCP 21 VALUE	DEFAULT VCP 31 VALUE	DEFAULT VCP 32 VALUE	DEFAULT VCP 300 VALUE	DEFAULT VCP 301 VALUE
Surveillance PRF Number	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Surveillance PRF Pulse Count/Radiation	n/a	SInteger	1	1 to 999	0	0	0	0	0	0
Azimuth Rate		see Table XI-D			0x4798	0x28C0	0x0000	0x0000	0x0000	0x0000
Reflectivity Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x001C	0x001C	0x0000	0x0000	0x0000	0x0000
Velocity Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x001C	0x001C	0x0000	0x0000	0x0000	0x0000
Spectrum Width Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x001C	0x001C	0x0000	0x0000	0x0000	0x0000
Spares	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 1)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 1)	n/a	SInteger	1	1 to 8	6	7	0	0	0	0
Doppler PRF Pulse Count/Radiation (sector 1)	n/a	SInteger	1	1 to 999	43	82	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 2)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 2)	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radiation (sector 2)	n/a	SInteger	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 3)		see Table III-A			0	0	0	0	0	0
Doppler	n/a	SInteger	1	1 to 8	0	0	0	0	0	0

VARIABLE NAME	UNITS	FORMAT	ACCURACY/ PRECISION	RANGE	DEFAULT VCP 11 VALUE	DEFAULT VCP 21 VALUE	DEFAULT VCP 31 VALUE	DEFAULT VCP 32 VALUE	DEFAULT VCP 300 VALUE	DEFAULT VCP 301 VALUE
PRF Number (sector 3)		r								
Doppler PRF Pulse Count/Radia l (sector 3)	n/a	SIntege r	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Elevation Cut 11										
Elevation Angle		see Table III-A			0x0630	0x0DE0	0x0000	0x0000	0x0000	0x0000
Channel Configuratio n / Waveform Type	n/a	Integer Code	n/a	see Table XI	3	3	0	0	0	0
Surveillance PRF Number	n/a	SIntege r	1	1 to 8	0	0	0	0	0	0
Surveillance PRF Pulse Count/Radia l	n/a	SIntege r	1	1 to 999	0	0	0	0	0	0
Azimuth Rate		see Table XI-D			0x4840	0x2900	0x0000	0x0000	0x0000	0x0000
Reflectivity Threshold	dB	SIntege r, scaled	1/8 dB	-12.0 to +20.0	0x001C	0x001C	0x0000	0x0000	0x0000	0x0000
Velocity Threshold	dB	SIntege r, scaled	1/8 dB	-12.0 to +20.0	0x001C	0x001C	0x0000	0x0000	0x0000	0x0000
Spectrum Width Threshold	dB	SIntege r, scaled	1/8 dB	-12.0 to +20.0	0x001C	0x001C	0x0000	0x0000	0x0000	0x0000
Spares	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 1)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 1)	n/a	SIntege r	1	1 to 8	7	7	0	0	0	0
Doppler PRF Pulse Count/Radia	n/a	SIntege r	1	1 to 999	46	82	0	0	0	0

VARIABLE NAME	UNITS	FORMAT	ACCURACY/PRECISION	RANGE	DEFAULT VCP 11 VALUE	DEFAULT VCP 21 VALUE	DEFAULT VCP 31 VALUE	DEFAULT VCP 32 VALUE	DEFAULT VCP 300 VALUE	DEFAULT VCP 301 VALUE
l (sector 1)										
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 2)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 2)	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radiation (sector 2)	n/a	SInteger	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 3)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 3)	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radiation (sector 3)	n/a	SInteger	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Elevation Cut 12										
Elevation Angle		see Table III-A			0x0720	0x0000	0x0000	0x0000	0x0000	0x0000
Channel Configuration / Waveform Type	n/a	Integer Code	n/a	see Table XI	3	0	0	0	0	0
Surveillance PRF Number	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Surveillance PRF Pulse Count/Radiation	n/a	SInteger	1	1 to 999	0	0	0	0	0	0
Azimuth Rate		see Table XI-D			0x4850	0x0000	0x0000	0x0000	0x0000	0x0000
Reflectivity Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to	0x001C	0x0000	0x0000	0x0000	0x0000	0x0000

VARIABLE NAME	UNITS	FORMAT	ACCURACY/PRECISION	RANGE	DEFAULT VCP 11 VALUE	DEFAULT VCP 21 VALUE	DEFAULT VCP 31 VALUE	DEFAULT VCP 32 VALUE	DEFAULT VCP 300 VALUE	DEFAULT VCP 301 VALUE
				+20.0						
Velocity Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x001C	0x0000	0x0000	0x0000	0x0000	0x0000
Spectrum Width Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x001C	0x0000	0x0000	0x0000	0x0000	0x0000
Spares	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 1)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 1)	n/a	SInteger	1	1 to 8	7	0	0	0	0	0
Doppler PRF Pulse Count/Radiation (sector 1)	n/a	SInteger	1	1 to 999	46	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 2)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 2)	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radiation (sector 2)	n/a	SInteger	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 3)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 3)	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radiation (sector 3)	n/a	SInteger	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Elevation Cut 13										
Elevation Angle		see Table			0x0888	0x0000	0x0000	0x0000	0x0000	0x0000

VARIABLE NAME	UNITS	FORMAT	ACCURACY/PRECISION	RANGE	DEFAULT VCP 11 VALUE	DEFAULT VCP 21 VALUE	DEFAULT VCP 31 VALUE	DEFAULT VCP 32 VALUE	DEFAULT VCP 300 VALUE	DEFAULT VCP 301 VALUE
		III-A								
Channel Configuration / Waveform Type	n/a	Integer Code	n/a	see Table XI	3	0	0	0	0	0
Surveillance PRF Number	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Surveillance PRF Pulse Count/Radiation	n/a	SInteger	1	1 to 999	0	0	0	0	0	0
Azimuth Rate		see Table XI-D			0x4870	0x0000	0x0000	0x0000	0x0000	0x0000
Reflectivity Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x001C	0x0000	0x0000	0x0000	0x0000	0x0000
Velocity Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x001C	0x0000	0x0000	0x0000	0x0000	0x0000
Spectrum Width Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x001C	0x0000	0x0000	0x0000	0x0000	0x0000
Spares	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 1)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 1)	n/a	SInteger	1	1 to 8	7	0	0	0	0	0
Doppler PRF Pulse Count/Radiation (sector 1)	n/a	SInteger	1	1 to 999	46	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 2)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 2)	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radiation	n/a	SInteger	1	1 to 999	0	0	0	0	0	0

VARIABLE NAME	UNITS	FORMAT	ACCURACY/ PRECISION	RANGE	DEFAULT VCP 11 VALUE	DEFAULT VCP 21 VALUE	DEFAULT VCP 31 VALUE	DEFAULT VCP 32 VALUE	DEFAULT VCP 300 VALUE	DEFAULT VCP 301 VALUE
l (sector 2)										
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 3)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 3)	n/a	SIntege r	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radia l (sector 3)	n/a	SIntege r	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Elevation Cut 14										
Elevation Angle		see Table III-A			0x09F8	0x0000	0x0000	0x0000	0x0000	0x0000
Channel Configuratio n / Waveform Type	n/a	Integer Code	n/a	see Table XI	3	0	0	0	0	0
Surveillance PRF Number	n/a	SIntege r	1	1 to 8	0	0	0	0	0	0
Surveillance PRF Pulse Count/Radia l	n/a	SIntege r	1	1 to 999	0	0	0	0	0	0
Azimuth Rate		see Table XI-D			0x4890	0x0000	0x0000 0	0x0000	0x0000	0x0000
Reflectivity Threshold	dB	SIntege r, scaled	1/8 dB	-12.0 to +20.0	0x001C	0x0000	0x0000	0x0000	0x0000	0x0000
Velocity Threshold	dB	SIntege r, scaled	1/8 dB	-12.0 to +20.0	0x001C	0x0000	0x0000	0x0000	0x0000	0x0000
Spectrum Width Threshold	dB	SIntege r, scaled	1/8 dB	-12.0 to +20.0	0x001C	0x0000	0x0000	0x0000	0x0000	0x0000
Spares	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 1)		see Table III-A			0	0	0	0	0	0
Doppler	n/a	SIntege	1	1 to 8	7	0	0	0	0	0

VARIABLE NAME	UNITS	FORMAT	ACCURACY/ PRECISION	RANGE	DEFAULT VCP 11 VALUE	DEFAULT VCP 21 VALUE	DEFAULT VCP 31 VALUE	DEFAULT VCP 32 VALUE	DEFAULT VCP 300 VALUE	DEFAULT VCP 301 VALUE
PRF Number (sector 1)		r								
Doppler PRF Pulse Count/Radia l (sector 1)	n/a	SIntege r	1	1 to 999	46	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 2)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 2)	n/a	SIntege r	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radia l (sector 2)	n/a	SIntege r	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 3)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 3)	n/a	SIntege r	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radia l (sector 3)	n/a	SIntege r	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Elevation Cut 15										
Elevation Angle		see Table III-A			0x0BE0	0x0000	0x0000	0x0000	0x0000	0x0000
Channel Configuratio n / Waveform Type	n/a	Integer Code	n/a	see Table XI	3	0	0	0	0	0
Surveillance PRF Number	n/a	SIntege r	1	1 to 8	0	0	0	0	0	0
Surveillance PRF Pulse Count/Radia	n/a	SIntege r	1	1 to 999	0	0	0	0	0	0

VARIABLE NAME	UNITS	FORMAT	ACCURACY/PRECISION	RANGE	DEFAULT VCP 11 VALUE	DEFAULT VCP 21 VALUE	DEFAULT VCP 31 VALUE	DEFAULT VCP 32 VALUE	DEFAULT VCP 300 VALUE	DEFAULT VCP 301 VALUE
1										
Azimuth Rate		see Table XI-D			0x48D0	0x0000	0x0000	0x0000	0x0000	0x0000
Reflectivity Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x001C	0x0000	0x0000	0x0000	0x0000	0x0000
Velocity Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x001C	0x0000	0x0000	0x0000	0x0000	0x0000
Spectrum Width Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x001C	0x0000	0x0000	0x0000	0x0000	0x0000
Spares	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 1)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 1)	n/a	SInteger	1	1 to 8	7	0	0	0	0	0
Doppler PRF Pulse Count/Radiation (sector 1)	n/a	SInteger	1	1 to 999	46	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 2)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 2)	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radiation (sector 2)	n/a	SInteger	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 3)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 3)	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radiation	n/a	SInteger	1	1 to 999	0	0	0	0	0	0

VARIABLE NAME	UNITS	FORMAT	ACCURACY/ PRECISION	RANGE	DEFAULT VCP 11 VALUE	DEFAULT VCP 21 VALUE	DEFAULT VCP 31 VALUE	DEFAULT VCP 32 VALUE	DEFAULT VCP 300 VALUE	DEFAULT VCP 301 VALUE
l (sector 3)										
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Elevation Cut 16										
Elevation Angle		see Table III-A			0x0DE0	0x0000	0x0000	0x0000	0x0000	0x0000
Channel Configuratio n / Waveform Type	n/a	Integer Code	n/a	see Table XI	3	0	0	0	0	0
Surveillance PRF Number	n/a	SIntege r	1	1 to 8	0	0	0	0	0	0
Surveillance PRF Pulse Count/Radia l	n/a	SIntege r	1	1 to 999	0	0	0	0	0	0
Azimuth Rate		see Table XI-D			0x4918	0x0000	0x0000	0x0000	0x0000	0x0000
Reflectivity Threshold	dB	SIntege r, scaled	1/8 dB	-12.0 to +20.0	0x001C	0x0000	0x0000	0x0000	0x0000	0x0000
Velocity Threshold	dB	SIntege r, scaled	1/8 dB	-12.0 to +20.0	0x001C	0x0000	0x0000	0x0000	0x0000	0x0000
Spectrum Width Threshold	dB	SIntege r, scaled	1/8 dB	-12.0 to +20.0	0x001C	0x0000	0x0000	0x0000	0x0000	0x0000
Spares	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 1)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 1)	n/a	SIntege r	1	1 to 8	7	0	0	0	0	0
Doppler PRF Pulse Count/Radia l (sector 1)	n/a	SIntege r	1	1 to 999	46	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 2)		see Table III-A			0	0	0	0	0	0
Doppler	n/a	SIntege	1	1 to 8	0	0	0	0	0	0

VARIABLE NAME	UNITS	FORMAT	ACCURACY/ PRECISION	RANGE	DEFAULT VCP 11 VALUE	DEFAULT VCP 21 VALUE	DEFAULT VCP 31 VALUE	DEFAULT VCP 32 VALUE	DEFAULT VCP 300 VALUE	DEFAULT VCP 301 VALUE
PRF Number (sector 2)		r								
Doppler PRF Pulse Count/Radia l (sector 2)	n/a	SIntege r	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 3)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 3)	n/a	SIntege r	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radia l (sector 3)	n/a	SIntege r	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Elevation Cut 17										
Elevation Angle		see Table III-A			0x0000	0x0000	0x0000	0x0000	0x0000	0x0000
Channel Configuratio n / Waveform Type	n/a	Integer Code	n/a	see Table XI	0	0	0	0	0	0
Surveillance PRF Number	n/a	SIntege r	1	1 to 8	0	0	0	0	0	0
Surveillance PRF Pulse Count/Radia l	n/a	SIntege r	1	1 to 999	0	0	0	0	0	0
Azimuth Rate		see Table XI-D			0x0000	0x0000	0x0000	0x0000	0x0000	0x0000
Reflectivity Threshold	dB	SIntege r, scaled	1/8 dB	-12.0 to +20.0	0x0000	0x0000	0x0000	0x0000	0x0000	0x0000
Velocity Threshold	dB	SIntege r, scaled	1/8 dB	-12.0 to +20.0	0x0000	0x0000	0x0000	0x0000	0x0000	0x0000
Spectrum Width	dB	SIntege r, scaled	1/8 dB	-12.0 to	0x0000	0x0000	0x0000	0x0000	0x0000	0x0000

VARIABLE NAME	UNITS	FORMAT	ACCURACY/PRECISION	RANGE	DEFAULT VCP 11 VALUE	DEFAULT VCP 21 VALUE	DEFAULT VCP 31 VALUE	DEFAULT VCP 32 VALUE	DEFAULT VCP 300 VALUE	DEFAULT VCP 301 VALUE
Threshold				+20.0						
Spares	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 1)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 1)	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radiation (sector 1)	n/a	SInteger	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 2)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 2)	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radiation (sector 2)	n/a	SInteger	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 3)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 3)	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radiation (sector 3)	n/a	SInteger	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Elevation Cut 18										
Elevation Angle		see Table III-A			0x0000	0x0000	0x0000	0x0000	0x0000	0x0000
Channel Configuration / Waveform Type	n/a	Integer Code	n/a	see Table XI	0	0	0	0	0	0

VARIABLE NAME	UNITS	FORMAT	ACCURACY/PRECISION	RANGE	DEFAULT VCP 11 VALUE	DEFAULT VCP 21 VALUE	DEFAULT VCP 31 VALUE	DEFAULT VCP 32 VALUE	DEFAULT VCP 300 VALUE	DEFAULT VCP 301 VALUE
Surveillance PRF Number	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Surveillance PRF Pulse Count/Radiation	n/a	SInteger	1	1 to 999	0	0	0	0	0	0
Azimuth Rate		see Table XI-D			0x0000	0x0000	0x0000	0x0000	0x0000	0x0000
Reflectivity Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x0000	0x0000	0x0000	0x0000	0x0000	0x0000
Velocity Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x0000	0x0000	0x0000	0x0000	0x0000	0x0000
Spectrum Width Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x0000	0x0000	0x0000	0x0000	0x0000	0x0000
Spares	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 1)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 1)	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radiation (sector 1)	n/a	SInteger	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 2)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 2)	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radiation (sector 2)	n/a	SInteger	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 3)		see Table III-A			0	0	0	0	0	0
Doppler	n/a	SInteger	1	1 to 8	0	0	0	0	0	0

VARIABLE NAME	UNITS	FORMAT	ACCURACY/PRECISION	RANGE	DEFAULT VCP 11 VALUE	DEFAULT VCP 21 VALUE	DEFAULT VCP 31 VALUE	DEFAULT VCP 32 VALUE	DEFAULT VCP 300 VALUE	DEFAULT VCP 301 VALUE
PRF Number (sector 3)		r								
Doppler PRF Pulse Count/Radiation (sector 3)	n/a	SInteger	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Elevation Cut 19										
Elevation Angle		see Table III-A			0x0000	0x0000	0x0000	0x0000	0x0000	0x0000
Channel Configuration / Waveform Type	n/a	Integer Code	n/a	see Table XI	0	0	0	0	0	0
Surveillance PRF Number	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Surveillance PRF Pulse Count/Radiation	n/a	SInteger	1	1 to 999	0	0	0	0	0	0
Azimuth Rate		see Table XI-D			0x0000	0x0000	0x0000	0x0000	0x0000	0x0000
Reflectivity Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x0000	0x0000	0x0000	0x0000	0x0000	0x0000
Velocity Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x0000	0x0000	0x0000	0x0000	0x0000	0x0000
Spectrum Width Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x0000	0x0000	0x0000	0x0000	0x0000	0x0000
Spares	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 1)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 1)	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radiation	n/a	SInteger	1	1 to 999	0	0	0	0	0	0

VARIABLE NAME	UNITS	FORMAT	ACCURACY/PRECISION	RANGE	DEFAULT VCP 11 VALUE	DEFAULT VCP 21 VALUE	DEFAULT VCP 31 VALUE	DEFAULT VCP 32 VALUE	DEFAULT VCP 300 VALUE	DEFAULT VCP 301 VALUE
l (sector 1)										
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 2)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 2)	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radiation (sector 2)	n/a	SInteger	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 3)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 3)	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radiation (sector 3)	n/a	SInteger	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Elevation Cut 20										
Elevation Angle		see Table III-A			0x0000	0x0000	0x0000	0x0000	0x0000	0x0000
Channel Configuration / Waveform Type	n/a	Integer Code	n/a	see Table XI	0	0	0	0	0	0
Surveillance PRF Number	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Surveillance PRF Pulse Count/Radiation	n/a	SInteger	1	1 to 999	0	0	0	0	0	0
Azimuth Rate		see Table XI-D			0x0000	0x0000	0x0000	0x0000	0x0000	0x0000
Reflectivity Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to	0x0000	0x0000	0x0000	0x0000	0x0000	0x0000

VARIABLE NAME	UNITS	FORMAT	ACCURACY/PRECISION	RANGE	DEFAULT VCP 11 VALUE	DEFAULT VCP 21 VALUE	DEFAULT VCP 31 VALUE	DEFAULT VCP 32 VALUE	DEFAULT VCP 300 VALUE	DEFAULT VCP 301 VALUE
				+20.0						
Velocity Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x0000	0x0000	0x0000	0x0000	0x0000	0x0000
Spectrum Width Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x0000	0x0000	0x0000	0x0000	0x0000	0x0000
Spares	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 1)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 1)	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radiation (sector 1)	n/a	SInteger	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 2)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 2)	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radiation (sector 2)	n/a	SInteger	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 3)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 3)	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radiation (sector 3)	n/a	SInteger	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Elevation Cut 21										
Elevation Angle		see Table			0x0000	0x0000	0x0000	0x0000	0x0000	0x0000

VARIABLE NAME	UNITS	FORMAT	ACCURACY/PRECISION	RANGE	DEFAULT VCP 11 VALUE	DEFAULT VCP 21 VALUE	DEFAULT VCP 31 VALUE	DEFAULT VCP 32 VALUE	DEFAULT VCP 300 VALUE	DEFAULT VCP 301 VALUE
		III-A								
Channel Configuration / Waveform Type	n/a	Integer Code	n/a	see Table XI	0	0	0	0	0	0
Surveillance PRF Number	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Surveillance PRF Pulse Count/Radiation	n/a	SInteger	1	1 to 999	0	0	0	0	0	0
Azimuth Rate		see Table XI-D			0x0000	0x0000	0x0000	0x0000	0x0000	0x0000
Reflectivity Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x0000	0x0000	0x0000	0x0000	0x0000	0x0000
Velocity Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x0000	0x0000	0x0000	0x0000	0x0000	0x0000
Spectrum Width Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x0000	0x0000	0x0000	0x0000	0x0000	0x0000
Spares	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 1)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 1)	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radiation (sector 1)	n/a	SInteger	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 2)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 2)	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radiation	n/a	SInteger	1	1 to 999	0	0	0	0	0	0

VARIABLE NAME	UNITS	FORMAT	ACCURACY/PRECISION	RANGE	DEFAULT VCP 11 VALUE	DEFAULT VCP 21 VALUE	DEFAULT VCP 31 VALUE	DEFAULT VCP 32 VALUE	DEFAULT VCP 300 VALUE	DEFAULT VCP 301 VALUE
l (sector 2)										
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 3)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 3)	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radiation (sector 3)	n/a	SInteger	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Elevation Cut 22										
Elevation Angle		see Table III-A			0x0000	0x0000	0x0000	0x0000	0x0000	0x0000
Channel Configuration / Waveform Type	n/a	Integer Code	n/a	see Table XI	0	0	0	0	0	0
Surveillance PRF Number	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Surveillance PRF Pulse Count/Radiation	n/a	SInteger	1	1 to 999	0	0	0	0	0	0
Azimuth Rate		see Table XI-D			0x0000	0x0000	0x0000	0x0000	0x0000	0x0000
Reflectivity Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x0000	0x0000	0x0000	0x0000	0x0000	0x0000
Velocity Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x0000	0x0000	0x0000	0x0000	0x0000	0x0000
Spectrum Width Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x0000	0x0000	0x0000	0x0000	0x0000	0x0000
Spares	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 1)		see Table III-A			0	0	0	0	0	0
Doppler	n/a	SInteger	1	1 to 8	0	0	0	0	0	0

VARIABLE NAME	UNITS	FORMAT	ACCURACY/ PRECISION	RANGE	DEFAULT VCP 11 VALUE	DEFAULT VCP 21 VALUE	DEFAULT VCP 31 VALUE	DEFAULT VCP 32 VALUE	DEFAULT VCP 300 VALUE	DEFAULT VCP 301 VALUE
PRF Number (sector 1)		r								
Doppler PRF Pulse Count/Radia l (sector 1)	n/a	SIntege r	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 2)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 2)	n/a	SIntege r	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radia l (sector 2)	n/a	SIntege r	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 3)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 3)	n/a	SIntege r	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radia l (sector 3)	n/a	SIntege r	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Elevation Cut 23										
Elevation Angle		see Table III-A			0x0000	0x0000	0x0000	0x0000	0x0000	0x0000
Channel Configuratio n / Waveform Type	n/a	Integer Code	n/a	see Table XI	0	0	0	0	0	0
Surveillance PRF Number	n/a	SIntege r	1	1 to 8	0	0	0	0	0	0
Surveillance PRF Pulse Count/Radia	n/a	SIntege r	1	1 to 999	0	0	0	0	0	0

VARIABLE NAME	UNITS	FORMAT	ACCURACY/PRECISION	RANGE	DEFAULT VCP 11 VALUE	DEFAULT VCP 21 VALUE	DEFAULT VCP 31 VALUE	DEFAULT VCP 32 VALUE	DEFAULT VCP 300 VALUE	DEFAULT VCP 301 VALUE
1										
Azimuth Rate		see Table XI-D			0x0000	0x0000	0x0000	0x0000	0x0000	0x0000
Reflectivity Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x0000	0x0000	0x0000	0x0000	0x0000	0x0000
Velocity Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x0000	0x0000	0x0000	0x0000	0x0000	0x0000
Spectrum Width Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x0000	0x0000	0x0000	0x0000	0x0000	0x0000
Spares	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 1)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 1)	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radiation (sector 1)	n/a	SInteger	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 2)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 2)	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radiation (sector 2)	n/a	SInteger	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 3)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 3)	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radiation	n/a	SInteger	1	1 to 999	0	0	0	0	0	0

VARIABLE NAME	UNITS	FORMAT	ACCURACY/ PRECISION	RANGE	DEFAULT VCP 11 VALUE	DEFAULT VCP 21 VALUE	DEFAULT VCP 31 VALUE	DEFAULT VCP 32 VALUE	DEFAULT VCP 300 VALUE	DEFAULT VCP 301 VALUE
l (sector 3)										
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Elevation Cut 24										
Elevation Angle		see Table III-A			0x0000	0x0000	0x0000	0x0000	0x0000	0x0000
Channel Configuratio n / Waveform Type	n/a	Integer Code	n/a	see Table XI	0	0	0	0	0	0
Surveillance PRF Number	n/a	SIntege r	1	1 to 8	0	0	0	0	0	0
Surveillance PRF Pulse Count/Radia l	n/a	SIntege r	1	1 to 999	0	0	0	0	0	0
Azimuth Rate		see Table XI-D			0x0000	0x0000	0x0000	0x0000	0x0000	0x0000
Reflectivity Threshold	dB	SIntege r, scaled	1/8 dB	-12.0 to +20.0	0x0000	0x0000	0x0000	0x0000	0x0000	0x0000
Velocity Threshold	dB	SIntege r, scaled	1/8 dB	-12.0 to +20.0	0x0000	0x0000	0x0000	0x0000	0x0000	0x0000
Spectrum Width Threshold	dB	SIntege r, scaled	1/8 dB	-12.0 to +20.0	0x0000	0x0000	0x0000	0x0000	0x0000	0x0000
Spares	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 1)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 1)	n/a	SIntege r	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radia l (sector 1)	n/a	SIntege r	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 2)		see Table III-A			0	0	0	0	0	0
Doppler	n/a	SIntege	1	1 to 8	0	0	0	0	0	0

VARIABLE NAME	UNITS	FORMAT	ACCURACY/PRECISION	RANGE	DEFAULT VCP 11 VALUE	DEFAULT VCP 21 VALUE	DEFAULT VCP 31 VALUE	DEFAULT VCP 32 VALUE	DEFAULT VCP 300 VALUE	DEFAULT VCP 301 VALUE
PRF Number (sector 2)		r								
Doppler PRF Pulse Count/Radiation (sector 2)	n/a	SInteger	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 3)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 3)	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radiation (sector 3)	n/a	SInteger	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Elevation Cut 25										
Elevation Angle		see Table III-A			0x0000	0x0000	0x0000	0x0000	0x0000	0x0000
Channel Configuration / Waveform Type	n/a	Integer Code	n/a	see Table XI	0	0	0	0	0	0
Surveillance PRF Number	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Surveillance PRF Pulse Count/Radiation	n/a	SInteger	1	1 to 999	0	0	0	0	0	0
Azimuth Rate		see Table XI-D			0x0000	0x0000	0x0000	0x0000	0x0000	0x0000
Reflectivity Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x0000	0x0000	0x0000	0x0000	0x0000	0x0000
Velocity Threshold	dB	SInteger, scaled	1/8 dB	-12.0 to +20.0	0x0000	0x0000	0x0000	0x0000	0x0000	0x0000
Spectrum Width	dB	SInteger, scaled	1/8 dB	-12.0 to	0x0000	0x0000	0x0000	0x0000	0x0000	0x0000

VARIABLE NAME	UNITS	FORMAT	ACCURACY/PRECISION	RANGE	DEFAULT VCP 11 VALUE	DEFAULT VCP 21 VALUE	DEFAULT VCP 31 VALUE	DEFAULT VCP 32 VALUE	DEFAULT VCP 300 VALUE	DEFAULT VCP 301 VALUE
Threshold				+20.0						
Spares	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 1)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 1)	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radiation (sector 1)	n/a	SInteger	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 2)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 2)	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radiation (sector 2)	n/a	SInteger	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0
Edge Angle (sector 3)		see Table III-A			0	0	0	0	0	0
Doppler PRF Number (sector 3)	n/a	SInteger	1	1 to 8	0	0	0	0	0	0
Doppler PRF Pulse Count/Radiation (sector 3)	n/a	SInteger	1	1 to 999	0	0	0	0	0	0
Spare	n/a	n/a	n/a	n/a	0	0	0	0	0	0

APPENDIX A GLOSSARY TABLE

Acronym / Abbreviation	Description
A	Antenna/Pedestal
A/D	Analog/Digital
AC	Air conditioner
AMP	Ampere
ANSI	American National Standards Institute
ANT	Antenna
ARC/VSWR	Arc/Voltage Standing Wave Ratio
ARP	Address Resolution Protocol
ASCII	American Standard Code for Information Interchange
ATTEN	Attenuator
BDDS	Base Data Distribution System
BITE	Built-in-Test-Equipment
C	Another designator for Communications
CAL	Calibration
CF	Clutter Filter
CHAN	Channel
CI	Configuration Item (hardware)
CMD	Command
COHO	Coherent
COM	Communications
CPCI	Computer Program Configuration Item
CSU	Channel Service Unit
CTR	Control
CW	Contiguous Wave
DAU	Data Acquisition Unit
DOC	Department of Commerce
DoD	Department of Defense
DOT	Department of Transportation
ED	Edge Detected
EQUIP	Equipment
FAA	Federal Aviation Administration
FO	Filtered Occurrence
FREQ	Frequency
GEN	Generator
GPS	Global Positioning System
HCI	Human Computer Interface
I/O	Input/Output
ICD	Interface Control Document
ICMP	Internet Control Message Protocol
ID, I.D.	Identification
IHL	Internet Header Length
IN	Inoperative
INIT	Initialization
IP	Internet Protocol
KD	Delayed Klystron

Acronym / Abbreviation	Description
KLY	Klystron
KM	Kilometer
KW	Kilowatts
LAN	Local Area Network
LOG	Logarithmic
LSB	Least Significant Bit
MAINT	Maintenance
MLOS	Microwave Line-Of-Sight
MM	Maintenance Mandatory
MR	Maintenance Required
MSB	Most Significant Bit
MSCF	Master Station Console Function
N/A	Not Applicable
NTP	Network Time Protocol
NWS	National Weather Service
OC	Occurrence
ORDA	Open RDA
ORPG	Open RPG
OSF	Operational Support Facility
OSI	Open System Interconnect
PED	Pedestal
PFN	Pulse Forming Network
PRF	Pulse Repetition Frequency
PVC	Permanent Virtual Channel
PWR	Power
PCU	Pedestal Control Unit
PMC	Program Management Committee
PPP	Point-to-Point Protocol
R	Another designator for the Receiver
RCV	Another representation for Receiver
RCVR	Receiver
RDA	Radar Data Acquisition area (hardware and software)
REG	Regulator
RF	Radiated Frequency
RMS	Remote Monitoring Subsystem
RPG	Radar Product Generation area (hardware and software)
SEC	Secondary Alarm
SEQ	Sequence
SG	Sigmet
SIG	Signal
SNMP	Simple Network Management Protocol
SP	Signal Processor
ST	System Test Software
STALO	Stable Local Oscillator
SW	Spectrum Width
SYS	System Information
T	Tower/Utilities

Acronym / Abbreviation	Description
T1	Type 1 communications carrier link (1.544 megabits/second)
TCM	Trellis Encoded Modulation
TCP	Transmission Control Protocol
TEMP	Temperature
TOUTS	Time-outs
TR	Another designator for the Transmitter
TST	Test
UART	Universal Asynchronous Receiver/Transmitter
UDP	User Datagram
UPS	Uninterruptible Power Supply
UTL	Utilities
V	Volts
V & V	Verification & Validation
VCP	Volume Coverage Pattern
VDC	Volts Direct current
VEL	Velocity
VSWR	Voltage Standing Wave Ratio
WG	Wave Guide
WSR-88D	Weather Service Radar - 88 Doppler
XMT	Another representation for Transmitter