



Common Interface File (CIF)

End User Specification Version 29

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Contents

1. PRELIMINARY INFORMATION
 - 1.1. Amendments Record
 - 1.2. Introduction
 - 1.3. Definition of terms
2. END USERS OF THE COMMON INTERFACE FILE
 - 2.1. General Information
 - 2.2. Local Users
 - 2.3. Remote Users (FTF and FTP)
 - 2.4. Ordering of Extract Files
3. EXTRACT FILE
 - 3.1. File Contents
 - 3.1.1. Schedules
 - 3.1.2. Associations
 - 3.2. File Generation
 - 3.3. File Format
 - 3.4. Further File Details
 - 3.4.1. Selection of Schedules
 - 3.4.2. UID Validity
 - 3.4.3. Associations
 - 3.4.4. Repeated Locations
 - 3.4.5. 2-digit years
 - 3.4.6. Daylight savings
4. RECORD LAYOUTS
 - 4.1. Header Record
 - 4.2. Basic Schedule
 - 4.3. Basic Schedule Extra Details
 - 4.4. Origin Location
 - 4.5. Intermediate Location
 - 4.6. Changes en Route
 - 4.7. Terminating Location
 - 4.8. Train Specific Note
 - 4.9. Location Specific Note
 - 4.10. Associations
 - 4.11. TIPLOC Insert
 - 4.12. TIPLOC Amend
 - 4.13. TIPLOC Delete
 - 4.14. Trailer Record
5. USER DETAILS AND DETERMINING COMPOSITION OF EXTRACTS
 - 5.1. General
 - 5.2. System Name/User Description
 - 5.3. FTF Site ID or FTP IP address & logon details
 - 5.4. STP
 - 5.5. Reservations Only
 - 5.6. Associations
 - 5.7. Output on CD
 - 5.8. European Data
 - 5.9. Train Status Values
 - 5.10. Train Category Values
 - 5.11. Time Window.
 - 5.12. Location
 - 5.13. TIPLOC Extract
6. SYSTEM LIMITS

Appendix A: LISTS OF VALID VALUES

ACTIVITY
APPLICABLE TIMETABLE SCHEDULE (ATS)
ATOC Codes
BHX
BUSSEC (Portion Id)
TRAIN CATEGORY
CATERING
CLASS (Seating)
ENGINEERING ALLOWANCE (Recovery Time)
HEADCODE
OPERATING CHARACTERISTICS
PATHING TIME
PERFORMANCE ALLOWANCE
POWER TYPE
RESERVATIONS
SERVICE BRANDING
SLEEPERS
STATUS
TIMING LOAD

Appendix B: THE COMMON INTERFACE FILE:

USER DESCRIPTION FORM

Appendix C: NOTES FOR COMPLETION OF CIF

USER DESCRIPTION FORM

Appendix D: THE COMMON INTERFACE FILE:

EXTRACT REQUEST FORM

Appendix E: EXAMPLES OF COMMON INTERFACE FILE DATA FORMAT

1. PRELIMINARY INFORMATION

1.1. Amendments Record

Issue 1	June 1988	Phase 1
Issue 2	March 1989	Phase 2
Issue 3	May 1989	(1) New fields SERVICE-BRANDING and PREF-TRACT (2) CR record to give FULL DETAILS of main train from location in question, not just values of the fields which have changed. (3) New BX record. (4) New Sections 3.4 and 6. (5) Various minor additions, etc.
Issue 4	September 1989	Introduction of STP associations on TSDB from 18/9/89. Possible to have undated association between pair of STP trains; also, STP cancel of pair of associated trains interpreted as cancel of association as well.
Issue 5	March 1990	Changes to Users' time window. Alterations to handling of second calls on TSDB. Changes to Association handling, following Association redesign on TSDB. Advance notice of new record types for Specific Notes. Changes to/additional paragraphs 2.3, 3.1.2, 3.3, 3.4.4, 3.4.5, 4.8-4.11, 5.4(c), 5.5 and 6.3
Issue 6	June 1990	Amendments to paragraphs 4.4, 4.5 for Performance Allowance.
Issue 7	March 1991	Introduction of fields on the Header Record for Version and for Extract Dates. The first value of Version will be 'A', this release of CIF to incorporate the extract dates and the option to file-to-file user extracts to the Nottingham mainframe. Tidying of specification following implementation of Association redesign on TSDB. Changes to paragraphs 2.1, 3.1.1, 3.1.2, 3.4.2, 3.4.4, 4.1, 4.10, 5.4 and 6.3.
Issue 8	September 1991	Introduction of Train Category as additional User Selection criterion Automatic deletion of Mainframe User files. Extended retention period before deletion of Remote User files. Modification to paragraph 4.1 User Start/End date definitions.
Issue 9	June 1992	Record Layouts for inclusion of TIPLOC information in CIF extracts. Clarification of paragraphs 3.2, 5.6. Removal of date restrictions for User time window.
Issue 10	January 1993	Further details of TIPLOC extract. Introduction of facility to include Continental European train data. Amplification of paragraph 2.1.
Issue 11	January 1994	Introduction of UIC Codes and facility to select 'Reservation only' trains. Tidying up of BS/LO/LI/LT/CR records.
Issue 12	November 1994	General tidying up and reissue in new format.
Issue 13	June 1996	Introduction of ATOC two-character code. Changed definitions of 'Reservation' values. Conversion to Network Rail Standard format.
Issue 14	May 1997	Section 3.2. File retention period increased from 14 to 30 days. Section 3.4.5. rewritten to take account of additional occurrences of 'Repeat Code'. Section 5.6 amended to remove reference to Buses. Appendix 1 amended: 'Activity' Z deleted, 'ATOC' GR/CS added, EC/NS deleted, 'Category' BR/BS/XD/XZ added.

PRELIMINARY INFORMATION

Issue 15	October 1997	<p>'Contents' section expanded.</p> <p>Section 3.1 'Introduction' added.</p> <p>Section 4.3 BX record layout amended to add ATS indicator.</p> <p>Section 6 'System Limits' maximum number of events/schedules on TSDB amended.</p> <p>Appendix 1 amended: 'Activity' PB deleted. 'ATS' added, 'ATOC' VT added, WC/XC deleted. 'Category' XJ deleted. 'Power Type' EPU/MLV deleted.</p> <p>General tidying up, clarification and reformat of document.</p>
Issue 16	September 1999	<p>Re-issued to reflect Year 2000 compliance issues. Appendices updated.</p> <p>New Appendix E added.</p> <p>General items of clarification.</p>
Issue 17	January 2001	<p>Re-presentation of Section 4 record layout definitions.</p> <p>Re-issue of Appendices A, B, C, D to reflect changes to ATOC codes and removal of Train Categories OM/XM.</p> <p>Section 2.4 renumbered 2.6.</p> <p>New sections 2.4 and 2.5 added.</p> <p>Re ordering and expansion of section 5.</p>
Issue 18	February 2002	<p>Re-issue of Appendices A, B, C, D to reflect changes to ATOC codes; WB/WE added.</p> <p>Changes to Catering Codes, H added, description for C amended.</p> <p>Train Categories Descriptions for OL/EL amended.</p>
Issue 19	July 2003	<p>Re-issue of Appendices A ATOC code SN changed to SC.</p> <p>Re-issued. Change of description of ATOC code ME and removal of AM.</p> <p>Amendments to CIF User request forms.</p> <p>Amendments to address, telephone and fax numbers throughout the document.</p>
Issue 20	April 2004	Re-issue of appendix A, section 3, ATOC Codes.
Issue 21	June 2004	Re-issue of 4.3, 4.6 and Appendix A to take account of designation of Headcode field for NRS and introduction of "Wheelchair only reservations" symbol (P in Catering).
Issue 23	June 2005	Amendments to Valid Values to add/amend/delete ATOC codes (TT becomes GL, AN removed, HC and NT added) and change to definition of Categories BR and BS.
Issue 24	February 2006	Amendments to Valid Values to add/amend/delete ATOC codes (NW removed, FC added) and addition of values 0,1,2,4,8 in BUSSEC field for use by NRS.
Issue 25	August 2007	Amendments to Valid Values to add/amend/delete ATOC codes (EM, LM, XC, and LO added).
Issue 26	April 2009	Reissue to reflect general cleansing, clarification and updating of the document. Catering code H re introduced.
Issue 27	November 2010	Document updated to reflect Network Rail being centralised in Milton Keynes.
Issue 28	November 2012	Document updated to reflect team changes.
Issue 29	June 2014	<p>Amendments to reflect current systems and processes</p> <p>Update to permissible UID values</p> <p>Indefinite end dates not permitted</p> <p>Clarification of CR records at non-stopping locations</p> <p>CD distribution no longer normally available</p> <p>Change to allow NXNN TIDs for European traffic.</p> <p>Updated Appendix B/D forms</p> <p>Inclusion of mandatory status on fields</p> <p>Improved formatting</p> <p>Updated Appendix A data.</p>

1.2. Introduction

The Common Interface File (CIF) format has been developed as the standard for transfer of railway timetable data electronically from Network Rail's Integrated Train Planning System (ITPS) to other computer systems that require such information.

CIF is updated each night with train information that has been amended in ITPS and set for publication during the working day.

The structure used for presentation of each train schedule within the file has a consistent format, but the selection of schedules to be included in each user's extract can be varied by several selection filters including type of train, geographical area and timetable period. These selection filters are described in more detail in the relevant section of this specification.

Data is available for the current timetable period, and also for the next timetable period. Data for the next timetable period is normally available from approximately 12 weeks prior to the commencement date of the timetable.

CIF is administered by Capacity Planning Systems Support in Milton Keynes, part of Network Rail's Network Operations organisation. As the System Controller they are responsible for the maintenance of extract selection criteria for each user of the system and also for ensuring that extract files are correctly produced in accordance with appendix B and D as received from a user. The System Controller will also monitor daily or periodic 'housekeeping' processes and will follow the necessary investigative procedures for any errors within extract files. Procedures associated primarily with the System Controller are not detailed as part of this specification.

Any queries concerning the contents of this document should be addressed to:

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Note that the TPC OPSU email address will no longer be available from 1/1/2015

1.3. Definition of terms

- **CIF: Common Interface File.**
 - File format used for transfer of timetable data from planning systems (ITPS) to “downstream” operational and information systems. Content defined in detail in this document.
- **JCL file**
 - Meta-data file generated by Metastorm & transmitted to the ATOS mainframe, containing details of onward routing for the file.
- **ITPS: Integrated Train Planning System**
 - System and interfaces used by Network Rail's Capacity Planning department to hold, validate, and distribute timetable data.
 - NB: “TPS” refers to the central planning system; “ITPS” refers to the system plus interfaces (including Metastorm components).
- **TSDB**
 - Obsolete database holding timetable data prior to introduction of ITPS.
- **Metastorm**
 - Workflow system handling – among other things - the scheduling of CIF production and the transmission of CIF files to the ATOS mainframe for onward distribution.
- **ATOS mainframe system**
 - Handles onward transmission of CIF files via FTF or FTP.
- **FTF: File to File**
 - ATOS proprietary file transfer mechanism
 - Not to be confused with industry-standard FTP.
- **LTP: Long Term Plan**
 - “Permanent” schedules prepared in advance for a timetable period. Initially issued 26 weeks prior to timetable period commencement but subject to later variation.
- **STP: Short Term Plan**
 - Amendments, additions and cancellations against the long term plan. Initially issued 12 weeks prior to relevant week, but subject to later variation.
- **Train**
 - For the purpose of this document, the term “train” refers to a set of schedules with a common UID.
- **Schedule**
 - For the purpose of this document, the term “schedule” refers to a set of data for a train on specified dates, including calling pattern, times, and other related information.
- **Association**
 - An association is an interaction between two trains which use some or all of the same physical rolling stock. This may be:
 - Next working: the main train terminates, and the other train originates at the location
 - Split: the main train continues, and the other train originates at the location
 - Join: the main train continues, and the other train terminates at the location

- Change en Route
 - Where some of the basic details of a train change partway through its journey, this is referred to as a change en route. Values that might change include service code (e.g.: for billing purposes when moving between infrastructure with different maintainers) and timing load data (e.g.: where a monitoring train goes from transiting to recording states). See CR record definition for a comprehensive list.
- TIPLOC: Timing point location
 - Schedules refer to locations in terms of TIPLOCs; these are theoretical constructs intended to simplify planning and not precise physical definitions. They are maintained by Capacity Planning.

2. END USERS OF THE COMMON INTERFACE FILE

2.1. General Information

- The end users of the Common Interface File (CIF) system are computer systems requiring train data from the Network Rail Integrated Train Planning System (ITPS) in electronic format. The CIF data is generated from ITPS, compiled using Metastorm, and then distributed to a mainframe (maintained by ATOS), for onward distribution to end users.
- There will be no direct access of CIF by end users.
- CIF users receive their files by one of three mechanisms: collection from Network Rail server (internal only); FTF transmission (usually older systems) and FTP transmission. (TOP2 and CTRL files are exceptions to this rule).

2.2. Local Users

- Files will be held at <\\gshv01ap05\\AppsServer\\mainframe\\Delivery>
- Use FTF site ID R321 to request this service.

2.3. Remote Users (FTF and FTP)

- Each remote user of the CIF will need a communications connection that allows access to transfer data from the ATOS mainframe. This may be an FTF or an FTP connection; if you are configuring a new user this will usually be FTP.
- For an FTF site ID you must apply to the CIF controller, who will arrange setup with ATOS.
- For an FTP connection you must supply IP address, username & password to the CIF controller.
- The communication connection between the mainframe and the end user is managed by ATOS.

2.4. Ordering of Extract Files

For an initial extract both the User Description form (Appendix B) and Extract Request form (Appendix D) must be completed and sent to Network Rail's Planning Systems Support Team via email (pss-team@networkrail.co.uk). The date the extract is required and (where applicable) the date the User can be made dormant should be clearly indicated.

An Appendix B form is required for all amendments made to a CIF profile, and Appendix D is required for all CIF requests. (Requests will not be processed until a correct Appendix B / Appendix D is received.)

Notes on the completion of the User Description form can be found in Appendix C.

CIF requests detailing changes to user profiles or requests for extracts must be submitted to pss-team@networkrail.co.uk in the form of an Appendix B / Appendix D. In general two working days should be allowed for processing, but the team will endeavour to process requests received prior to 12:00 for the same working day.

Extracts can be produced on a regular basis at regular intervals upon request. The system controller has the ability to schedule regular full extracts to be produced.

It is preferable that any CIF requests are registered as soon as possible. This allows time to resolve any queries that may arise.

2.6 Deleted and Amended Users

- If the deletion of a user is requested, the System Controller will delete the user profile record and no more extracts will be produced.
- A facility also exists for the System Controller to make a user "dormant"; no further extracts will take place until the user is reactivated and a full extract requested. This full extract will be provided within 48 hours.
- It is also possible to amend the selection criteria applicable to a user profile. Changes made will take effect from the next extract. Details are given in Section 5 'Determining Composition of Extracts'.

3. EXTRACT FILE

3.1. File Contents

3.1.1. Schedules

- The file will contain a set of train schedules of interest to a user. A train schedule is an image of a train where all the train's details are constant for the dates the schedule applies. Train schedule details will be the same as those held in ITPS, with the exception of certain activity code alterations. Activity codes in the CIF file will be as specified in Appendix A.

NB: 'indefinite' end dates of '999999' are no longer permissible.

- Only schedules for totally valid trains which have been successfully published will be generated in the extract file. Should a valid train be edited in ITPS and in consequence become invalid, the CIF user will be left with the last valid schedule(s) for the train. Once the train is made valid and republished, the new set of schedules will become available for the user.
- As extract files will specify how a user's train data has changed, the end user must be able to identify the schedules referred to by the extract file. A train schedule can be uniquely identified by UID & Start-date for non-overlay users and by UID, Start-date & Overlay indicator for overlay users. These are the identifiers which both CIF & the End User must use.
- Deletions will not be raised for schedules that have become historic.
- Amendments may be received for historic schedules where alterations are made after the schedule has started running but before it has finished.

3.1.2. Associations

- The file can also contain train association records if requested. These document the link between a pair of trains. Associations will be passed to the user independently of train schedules. CIF will document when an association occurs by holding the dates for which the association applies, not the schedules to which it applies. The user will have to establish the schedules involved in the association.
- Associations between two trains do not necessarily occur on exactly the same set of dates as far as the train schedule dates are concerned. This situation arises either: (a) when one train runs over midnight and the other does not, and the first train associates with the second after midnight; or (b) where a train terminating late one day is associated with a train which runs early the following day.
- A runs 29/05/15 - 21/09/15 FSX, B runs 30/05/15 - 22/09/15 MSX, A & B are associated with each other. The Association applies from 29/05/15 - 21/09/15 FSX.
- The association dates refer to those of the Base UID, not necessarily the date on which the association takes place. Where the dates of the associated train schedules will either be one day ahead or behind those of the Base UID schedules this is indicated by Association-type. In this case Association-type would be set to 'N'.
- In the case of Join (coupling) & Divide (splitting) Associations, the Base UID will always be the 'through' train.
For Previous/Next Associations, the Base UID will be the train that has a 'next' working (i.e. the Base UID will always be the earlier train in chronological order).
- The User system will be told of an association if it is interested in any of the schedules for either of the trains involved. Note that, for a geographic CIF user, an Association for a train running through the specified geographic area may take place at a location not specified for that area. In this case the associated train will only be available to the user if this second train also has other locations in common with the specified geographic area.
- If the User receives an amended schedule for a train, if the new schedule invalidates one or more existing associations, deletion(s) will be generated for the association(s) invalidated by the update in train schedules.

3.1.3 TIPLOC Codes

- Details of TIPLOC location codes can be included in the file if required, with the option provided to receive updates on a regular basis (normally this will take place on week-nights following the process to update the ITPS infrastructure).

3.2. File Generation

- Any active End User of CIF will automatically have an update file generated every night (including weekends). If a full extract is required this will be produced weekly. Files will be generated after the ITPS publication run is complete.
- As the user is sent a series of updates it is imperative that the extract files are processed in the order generated. The header record contains the date & time of the file's creation, and a unique reference of the current file and of the last file generated for the User. The User should compare the 'Last-file-ref' with the 'Curr-file-ref' of the last CIF Extract file processed. If the two are not the same, no further processing should be carried out on that file, as it is not being processed in the correct order.
- For remote users the files will be queued for transmission in the sequence in which they are received at the mainframe from ITPS. In the case of a transmission failure, however, care must be taken to ensure the files are still processed in the original order.
- Both mainframe and remote users' files will be automatically deleted from the mainframe 26 days after generation (even if remote users' files have not been successfully transmitted). If it is required to retain the files on the mainframe for a longer period than this they should be copied or renamed to prevent deletion. (Users should be aware that the CIF file name only remains unique for a maximum of 26 extract files. It is recommended that users implement a mechanism to delete or rename files.)

3.3. File Format

- The file is sequential containing fixed length 80 character records. It will contain different record types which can be identified by the 'record identity', the first two bytes of a record.
- The sequence of records within the file is significant. The following sequence laws will apply [the record identity is given in brackets ()]:

- i) Header record (HD)
- ii) TIPLOC location change records in the following order:
 - 1) TIPLOC Insert records (TI)
 - 2) TIPLOC Amend records (TA)
 - 3) TIPLOC Delete records (TD)
- iii) All association records in the following sequence (AA)
 - 1) Association Start Date
 - 2) UID Number of Main Train
 - 3) Transaction Type in the order DELETE>NEW>REPLACE
- iv) All train schedules in the following sequence:
 - 1) Schedule Start Date
 - 2) UID Number of Train
 - 3) Transaction Type in the order DELETE>NEW>REPLACE (see note below)

(N.B. for overlay users, Permanent schedules will precede Cancellations or Overlays where they are for the same Start-date/UID)

A train schedule comprises a set of records, output in the following order:-

- 1) a basic schedule record (BS)
 - 2) a basic schedule extra details record (BX)
 - 3) train specific note records, if present (TN)
 - 4) an origin location record (LO)
 - 5) all intermediate location records (LI) in journey sequence, preceded by a Change en Route, if present, for the location (CR)
 - 6) terminating location record (LT)
 - 7) location specific note records (LN); these may follow any LO, LI or LT records
- v) Trailer record (ZZ)

- Where a train schedule deletion (transaction type D) or cancellation (STP overlay indicator C) is raised, only a basic schedule (record identity 'BS') will be output, with only the identifier fields populated (including End Date and Days Run for new STP cancellations). Otherwise, the schedule will consist of at least record types BS, BX, LO and LT.
- Note that it is possible to receive an "empty" file, consisting of a header (HD) and a trailer (ZZ) only.
- Note that TN and LN records are not currently in use.
- Note that CR records may apply to any LI record, regardless of whether or not the location is a stopping point.

3.4. Further File Details

3.4.1. Selection of Schedules

- If a train is updated in ITPS and successfully published, new or amended schedules will be passed to CIF. Any differences from what was held before will be passed on to interested users. If only some schedules for a UID are affected, only updates for those will be passed to a user; hence the user may not receive a full set of schedules for an amended UID and must retain any existing ones not replaced/deleted. The same logic applies to associations; also new schedules may be issued for a UID without new association records if the latter are unchanged, and vice versa.
- Because of the complexities of STP, sometimes users may receive a delete for a UID/start date/STP indicator, followed by a new schedule for the same UID/start date/STP indicator.
- A user may sometimes receive an LTP schedule which does not run on any date in the time window; inclusion of LTP schedules in CIF is based on their original ('nominal') start and end dates and not their actual running dates.

3.4.2. UID Validity

- Only trains where the UID is valid in ITPS for all timetables will be passed to CIF (and hence to CIF users), regardless of the current CIF time window.

3.4.3. Associations

- If either of a pair of associated trains is cancelled on an STP basis for some days/dates, this will be interpreted as also cancelling the association. STP and overlay users will receive association data reflecting this. For STP users, the association dates will exclude the cancellation period; for overlay users, a cancellation record for the association will be produced for the appropriate days/dates.
- Only valid associations will be passed to users; these are associations where both trains are valid and the association is valid.
- It is possible for an association to be amended or cancelled for STP purposes without any amendment to the relevant train schedules (i.e. the relationships between trains are changed, but not the trains themselves). Also, it is possible to have an STP association defined, where no permanent association exists.
- It is possible for a train to have more than one association of any type (or a combination of types) at a single location.

3.4.4. Repeated Locations

- A specific location may occur on each schedule up to nine times. These are distinguished by unique suffix values (either 'blank' or in the range 2-9 inclusive) following the TIPLOC in the 'LOCATION' field of the LO, LI or LT records. If present, the suffix value will always appear as the eighth character, even if the TIPLOC has less than seven characters.

3.4.5. 2-digit years

- Where 2-digit year codes are used they should be interpreted as follows:
 - 00-59: 20XX
 - 60-99: 19XX

3.4.6. Daylight savings

- There is no mechanism in the CIF process to make adjustments for daylight savings time. The running of services affected by clock change is detailed in the relevant Weekly Operating Notices.

4. RECORD LAYOUTS

This section contains layout descriptions for all the CIF record types. Each record is 80 characters long, although in most cases not all of the record is defined.

In the layout descriptions, the names in CAPITALS under 'Comment' are the TSDB names for the data; these have been retained for historical reference.. The information is summarised in the List of Valid Values (Appendix A) or is referred to in the 'notes' for each record type.

Record Types 'TN' and 'LN' have been defined and are included for completeness although these are not in use and will not appear in extract files.

For each record type the following information is shown:

- 1) Field Name
- 2) Size: no of characters allocated to the 'field'
- 3) Format

N	Numeric
A	Alphabetic (letter)
X	Alphanumeric (any character)

Where applicable, detailed format information is given in lower case and brackets.

- 4) Mandatory/Optional status

M	Mandatory
O	Non-mandatory
T	Mandatory except for truncated records (see individual record types for truncation criteria)

- 5) Comment

A number of data items, although defined as part of the record layouts, are not supported. In some cases, usually for historic reasons, data may appear in these fields. This, however, should not be relied upon for accuracy. In summary, data items of this nature are:

Course Indicator (record BS/CR). No longer used. Value will always be '1' (one)

Connection Indicator (record BS/CR). No longer used.

Traction Class (record BX/CR). No longer used.

Diagram type (record AA). No longer used. Value will always be 'T'.

4.1. Header Record

Field Name	Size	Format	Mand- atory	Comment
Record Identity	2	A	M	value HD
File Mainframe Identity	20	X	M	See note (1)
Date of Extract	6	N	M	Format <i>ddmmyy</i> .
Time of Extract	4	N	M	Format <i>hhmm</i> . 24-hour clock
Current-File-Ref	7	X	M	Unique file reference. See note (1)
Last-File-Ref	7	X	O	Last file generated ref. See note (1) Blank if this is the first file for this user
Bleed-off/Update Ind	1	A	M	U = update extract F = full extract
Version	1	A	M	Version of CIF software, incremented for each significant change.
User Extract Start Date	6	N	M	Format <i>ddmmyy</i> . Today's date if user time window is number of days. See note (2)
User Extract End Date	6	N	M	Format <i>ddmmyy</i> . See note
Spare	20			

Notes:

- 1) The 'File Mainframe Identity' is of the form: TPS.Uxxxxxx.PDyyymmdd
and the 'Unique File Reference' is of the form: xxxxxxa
where 'xxxxxx' is the user identity, 'yyymmdd' is the date to which the extract relates, and the final 'a' of unique file reference is a single alpha which increments from A through to Z (and then restarting at A again) with each successive extract. This format is used for both 'Current-File-Ref' and 'Last-File-Ref.' (N.B. this means that the file reference only remains unique for a maximum of 26 extract files. Remote users, therefore, must ensure that a mechanism exists to delete or rename files following processing and before this maximum is reached)
- 2) User Start Date - If the user time window is defined by a fixed Start and End date, those shown may be the actual dates specified in the Start Dates field on the user record, but this will be adjusted if the specified Start date is historic.

4.2. Basic Schedule

Field Name	Size	Format	Mand- atory	Comment
Record Identity	2	A	M	value BS
Transaction Type	1	A	M	N = new, D = delete, R = Revise. See note (1)
Train UID	6	X (annnnn)	M	UNIQUE-ID - See note (2)
Date Runs From	6	N	M	Format <i>yymmdd</i> .
Date Runs To	6	N	T	Format <i>yymmdd</i> .
Days Run	7	N	T	DAYS - See note (3)
Bank Holiday Running	1	A	O	BHX – See Appendix A
Train Status	1	A	T	STATUS - See Appendix A
Train Category	2	X	T	CATEGORY - See Appendix A
Train Identity	4	X (nxnn)	T	TRAIN-IDENTITY. Format nxnn. See note (8) This is the TID, also referred to as headcode (not to be confused with operator-controlled NRS headcode below)
Headcode	4	N	O	HEADCODE - See Appendix A NRS headcode, designated by train operator, not to be confused with TID above.
Course Indicator	1	N	M	COURSE-IND. Not used to convey data but value '1' always populated.
Train Service Code	8	N	T	SERVICE-CODE – See note (4)
Portion Id	1	X	O	BUSSEC - See Appendix A and note (7)
Power Type	3	X	T	POWER-TYPE - See Appendix A
Timing Load	4	X	O	TIMING-LOAD - See Appendix A Mandatory for train schedules.
Speed	3	N	T	SPEED – See note (5)
Operating Characteristics	6	A	O	OPER-CHARS - 6 x 1 - See Appendix A
Seating Class	1	A	O	CLASS - See Appendix A
Sleepers	1	A	O	SLEEPERS - See Appendix A
Reservations	1	A	O	RESERVATIONS - See Appendix A
Connection Indicator	1	A	n/a	CONNECT-IND. Not used
Catering Code	4	A	O	CATERING - 4 x 1 - See Appendix A
Service Branding	4	A	O	SERVICE-BRAND - 4 x 1 - See Appendix A
Spare	1			
STP Indicator	1	A	M*	space - if non overlay user. C - STP Cancellation of Permanent schedule N - New STP schedule (not an overlay) O - STP overlay of Permanent schedule P - Permanent *Mandatory for overlay user only. See note (6)

Notes

- 1) When Transaction Type 'D' is used a truncated version of the BS record is produced in which not all data fields are populated. UID, Start Date & STP Indicator are used in combination to identify the previously issued record for deletion.
- 2) Train UID is the unique identity number used as a key field within ITPS and CIF. The format is annnnn, where 'a' is any letter other than D, E, I, O, T & Z.
- 3) Days Run is a 7-character binary field with each character set to 1 (train runs) or 0 (train does not run). Position 1 = Monday, 2 = Tuesday, etc. through to 7 = Sunday.
- 4) Train Service Code is an 8-character numeric field that divides trains into 'service groups'. Used, among other purposes, for attribution of revenue.
- 5) Speed is a 3-character numeric field indicating the speed (in mph) at which the train is planned. For non-train schedules, speed may be blank.
- 6) When STP Indicator 'C' is used a truncated version of the BS record is produced in which not all data fields are populated.
- 7) The BUSSEC field was formerly used to denote Business Sector in BR days, particularly for freight services, and was latterly used to denote a train could carry Red Star Parcels. This field has been given over to the NRS (Reservation) system to denote a Portion Id for services involved in joining/splitting activities (Associations).
- 8) Fully numeric 4-digit TIDs required primarily for European and HS1 traffic but anticipating expansion to other parts of the network at a later date.

4.3. Basic Schedule Extra Details

Note that for Deletion and Cancellation of schedules, a BX record will not be issued.

Field Name	Size	Format	Mand- atory	Comment
Record Identity	2	A	M	value BX
Traction Class	4	A	n/a	PREF-TRACT. Not used
UIC Code	5	N	O	UIC-CODE - See note (1)
ATOC Code	2	A	M	ATOC-CODE – See Appendix A
Applicable	1	A	M	ATS-CODE – See Appendix A
Timetable Code				
Reserved field	8	X	n/a	RSID – See note (2)
Reserved field	1	A	n/a	Data source – See note (3)
Spare	57			

Notes

- 1) UIC Code is a 5-character numeric code allocated by Union Internationale des Chemins de Fer (International Union of Railways) for train services running to/from continental Europe via the Channel Tunnel.
- 2) RSID is used by NRS (New Reservation System) – it is in the format aa (TOC Id), nnnn (Train number derived from NRS Headcode field), nn (portion number). This field will be populated downstream and will **not** appear in CIF files from ITPS.
- 3) Data source is used by NRS (New Reservation System) – the value will be either blank/zero = ITPS, or T = TOC direct. This field will be populated downstream and will **not** appear in CIF files from ITPS.

4.4. Origin Location

Note that for Deletion and Cancellation of schedules, an LO record will not be issued.

Field Name	Size	Format	Mand- atory	Comment
Record Identity	2	A	M	value LO
Location	8	X (xxxxxxxxn)	M	LOCATION (TIPLOC + Suffix)
Scheduled Departure	5	X (nnnna)	M	SCHED-DEP-TIME. Format <i>hhmm</i> 24-hr clock + optional 'H' = half-min
Public Departure	4	N	M*	PUBLIC-DEP-TIME. Format <i>hhmm</i> 24-hr clock Where public times are not applicable (e.g.: freight schedules) '0000' is sent.
Platform	3	X	O	PLATFORM. See note (1)
Line	3	X	O	LINE. See note (2)
Engineering Allowance	2	X (na)	O	ENG-ALLOW – See Appendix A
Pathing Allowance	2	X (na)	O	PATH-TIME– See Appendix A
Activity	12	X	M	ACTIVITY - 6 x 2– See Appendix A and note (3)
Performance Allowance	2	X (na)	O	PERFORM-ALLOW – See Appendix A
Reserved field	3	X	N/A	Reserved for downstream use (Thameslink)
Spare	34			

Notes

- 1) Platform is a 3-character alphanumeric field designating line planned to be used by the train at the location in question. If present, this may be a platform number or other line abbreviation code.
- 2) Line is a 3-character alphanumeric field designating line planned to be used by the train on departure from the location in question. If present, this will be a line abbreviation code.
- 3) Activity 'TB' (Train Begins) is mandatory on LO records.

4.5. Intermediate Location

Note that for Deletion and Cancellation of schedules, LI records will not be issued.

Field Name	Size	Format	Mandatory	Comment
Record Identity	2	A	M	value LI
Location	8	X (xxxxxxxxn)	M	LOCATION (TIPLOC + Suffix)
Scheduled Arrival	5	X (nnnna)	O	SCHED-ARR-TIME. Format <i>hhmm</i> 24-hr clock + optional 'H' = half-min A LI record must have <i>either</i> Scheduled Arrival and Departure, <i>or</i> Scheduled Pass times.
Scheduled Departure	5	X (nnnna)	O	SCHED-DEP-TIME. Format <i>hhmm</i> 24-hr clock + optional 'H' = half-min A LI record must have <i>either</i> Scheduled Arrival and Departure, <i>or</i> Scheduled Pass times.
Scheduled Pass	5	X (nnnna)	O	SCHED-PASS-TIME. Format <i>hhmm</i> 24-hr clock + optional 'H' = half-min A LI record must have <i>either</i> Scheduled Arrival and Departure, <i>or</i> Scheduled Pass times.
Public Arrival	4	N	M	PUBLIC-ARR-TIME. Format <i>hhmm</i> 24-hr clock Where public times are not applicable (e.g.: freight schedules) or where a pass time has been specified, '0000' is sent.
Public Departure	4	N	M	PUBLIC-DEP-TIME. Format <i>hhmm</i> 24-hr clock Where public times are not applicable (e.g.: freight schedules) or where a pass time has been specified, '0000' is sent.
Platform	3	X	O	PLATFORM – See note (1)
Line	3	X	O	LINE– See notes (2) and (4)
Path	3	X	O	PATH– See notes (3) and (4)
Activity	12	X	O	ACTIVITY - 6x2. See Appendix A When Scheduled Departure is populated, at least one Activity will be present.
Engineering Allowance	2	X (na)	O	ENG-ALLOW – See Appendix A
Pathing Allowance	2	X (na)	O	PATH-TIME – See Appendix A
Performance Allowance	2	X (na)	O	PERFORM-ALLOW – See Appendix A
Reserved field	5	X	N/A	Reserved for downstream use (Thameslink)
Spare	15			

Notes

- 1) Platform is a 3-character alphanumeric field designating line planned to be used by the train at the location in question. If present, this may be a platform number or other line abbreviation code.
- 2) Line is a 3-character alphanumeric field designating line planned to be used by the train on departure from the location in question. If present, this will be a line abbreviation code.
- 3) Path is a 3-character alphanumeric field designating line planned to be used by the train on arrival at the location in question. If present, this will be a line abbreviation code.
- 4) By default, if the Line or Path code has not changed from that supplied in a previous LI/LO record, these fields will be blank. This behaviour can be overwritten for all schedules at a specific location by use of the L/P/B Flag (line/path/both) to force inclusion.

4.6. Changes en Route

Note that for Deletion and Cancellation of schedules, CR records will not be issued.

Field Name	Size	Format	Mand- atory	Comment
Record Identity	2	A	M	value CR
Location	8	X (xxxxxxxxn)	M	LOCATION (TIPLOC + Suffix)
Train Category	2	X	M	CATEGORY – See Appendix A
Train Identity	4	X (nxnn)	M	TRAIN-IDENTITY – Format nxnn. See note (2) This is the TID, also referred to as headcode (not to be confused with operator-controlled NRS headcode, below)
Headcode	4	N	O	HEADCODE– See Appendix A NRS headcode, designated by train operator, not to be confused with TID above.
Course Indicator	1	N	M	COURSE-IND. Not used to convey data but value '1' is always populated.
Train Service Code	8	N	M	SERVICE-CODE – See note (3)
Portion Id	1	X	O	BUSSEC– See Appendix A and note (7)
Power Type	3	X	M	POWER-TYPE– See Appendix A
Timing Load	4	X	O	TIMING-LOAD– See Appendix A Mandatory for train schedules.
Speed	3	N	M	SPEED - See note (4)
Operating Characteristics	6	A	O	OPER-CHARS - 6 x 1– See Appendix A
Seating Class	1	A	O	CLASS– See Appendix A
Sleepers	1	A	O	SLEEPERS– See Appendix A
Reservations	1	A	O	RESERVATIONS– See Appendix A
Connection Indicator	1	A	N/A	CONNECT-IND – Not used
Catering Code	4	A	O	CATERING - 4 x 1– See Appendix A
Service Branding	4	A	O	SERVICE-BRAND - 4 x 1– See Appendix A
Traction Class	4		N/A	PREF-TRACT. Not used
UIC Code	5	N	O	UIC-CODE - See note (5)
Reserved field	8	X	N/A	RSID – See note (6)
Spare	5			

Notes

- 1) ALL the above fields will be populated either with the Change en Route value from ITPS, or, if the field in question does not change, with the Main Train value. Therefore values such as '----' and '-1' will NOT APPEAR on CIF. A value of spaces will mean that, from the location in question, the field has null value.
- 2) Fully numeric 4-digit TIDs required primarily for European and HS1 traffic but anticipating expansion to other parts of the network at a later date.
- 3) Train Service Code is an 8-character numeric field that divides trains into 'service groups'. Used, among other purposes, for attribution of revenue.
- 4) Speed is a 3-character numeric field indicating the speed (in mph) at which the train is planned. For non-train schedules, speed may be blank.
- 5) UIC Code is a 5-character numeric code allocated by Union Internationale des Chemins de Fer (International Union of Railways) for train services running to/from continental Europe via the Channel Tunnel.
- 6) RSID is used by NRS (New Reservation System) – it is in the format aa (TOC Id), nnnn (Train number derived from NRS Headcode field), nn (portion number). This field will be populated downstream and will **not** appear in CIF files from ITPS.
- 7) The NRS system will not handle CERs on this field so they should not appear, however it is still a valid entry in ITPS.

4.7. Terminating Location

Note that for Deletion and Cancellation of schedules, an LT record will not be issued.

Field Name	Size	Format	Mand- atory	Comment
Record Identity	2	A	M	value LT
Location	8	X (xxxxxxxxn)	M	LOCATION (TIPLOC + Suffix)
Scheduled Arrival	5	X (nnnna)	M	SCHED-ARR-TIME. Format <i>hhmm</i> 24-hr clock + optional 'H' = half-minute
Public Arrival	4	N	M*	PUBLIC-ARR-TIME. Format <i>hhmm</i> 24-hr clock Where public times are not applicable (e.g.: freight schedules) '0000' is sent.
Platform	3	X	O	PLATFORM – See note (1)
Path	3	X	O	PATH– See notes (2) and (3)
Activity	12	X	M	ACTIVITY - 6x2. See Appendix A and (4)
Reserved field	3	X	N/A	Reserved for downstream use (Thameslink)
Spare	40			

Notes

- 1) Platform is a 3-character alphanumeric field designating line planned to be used by the train at the location in question. If present, this may be a platform number or other line abbreviation code.
- 2) Path is a 3-character alphanumeric field designating line planned to be used by the train on arrival at the location in question. If present, this will be a line abbreviation code.
- 3) By default, if the Path code has not changed from that supplied in a previous LI/LO record, these fields will be blank. This behaviour can be overwritten for all schedules at a specific location by use of the L/P/B Flag (line/path/both) to force inclusion.
- 4) Activity 'TF' (Train Finish) is mandatory on LT records.

4.8. Train Specific Note

Field Name	Size	Format	Mand- atory	Comment
Record Identity	2	A	N/A	value TN
Note Type	1	A	N/A	G = 'GBTT' (NRT) or W = WTT
Note	77	A	N/A	Text in upper/lower case, and punctuation, etc

N.B. This record type is not currently in use.

4.9. Location Specific Note

Field Name	Size	Format	Mand- atory	Comment
Record Identity	2	A	N/A	value LN
Note Type	1	A	N/A	G = 'GBTT' (NRT) or W = WTT
Note	77	A	N/A	Text in upper/lower case, and punctuation, etc

The records will follow the LO, LI or LT record for that location.

N.B. This record type is not currently in use.

RECORD LAYOUTS

Associations

Field Name	Size	Format	Mand -atory	Comment
Record Identity	2	A	M	value AA
Transaction Type	1	A	M	N = new, D = delete, R = revise. See note (1)
Main Train-UID	6	X (annnnn)	M	one of the trains involved
Associated Train-UID	6	X (annnnn)	M	the other train involved
Association-start-date	6	N	M	(yymmdd)
Association-end-date	6	N	M	(yymmdd)
Association-days	7	N	M	DAYS – See note (2)
Association-category	2	A	T	values JJ, VV or NP (i.e.: the association category (join/split/next) for the base UID, followed by the association category (join/split/previous) for the associated UID) See note (3)
Association-date-ind	1	A	T	S = standard (same day), N = over-next-midnight, P = over-previous-midnight
Association-location	7	X	M	TIPLOC of location where association applies
Base-location-suffix	1	N	O	Value space or 2. together with TIPLOC,
Assoc-location-suffix	1	N	O	identifies event on base/assoc-UID
Diagram Type	1	A	M	Not used. Reserved to hold the diagram type that generated the association. Initially populated by 'T'.
Association Type	1	A	T	P = passenger use, O = operating use only
Spare	31			
STP Indicator	1	A	M*	space - if non overlay user *Mandatory for overlay user only C- STP Cancellation of Permanent association N- New STP association (not an overlay) O- STP overlay of Permanent association P- Permanent

Notes

- 1) When Transaction Type 'D' is used a truncated version of the AA record is produced in which not all data fields are populated. The UIDs, start date, and STP indicator can be used to identify the previously sent record for deletion.
- 2) Association-days is a 7-character binary field with each character set to 1 (train runs) or 0 (train does not run). Position 1 = Monday, 2 = Tuesday, etc. through to 7 = Sunday.
- 3) Association-category values are JJ= Join, VV = Divide or NP = Next. Categories of all types may appear on the same train. It is also possible for more than one of each type to exist on the same train.
- 4) When STP Indicator 'C' is used a truncated version of the AA record is produced in which not all data fields are populated.

4.10. TIPLOC Insert

Field Name	Size	Format	Mand- atory	Comment
Record Identity	2	A	M	value TI
TIPLOC code	7	X	M	TIPLOC code may be up to 7 characters
Capitals Identification	2	N	M	Defines capitalisation of TIPLOC
Nalco	6	N	M	National Location code
NLC check character	1	A	O	
TPS Description	26	X	O	'English' description of location
Stanox	5	N	M*	TOPS location code
PO MCP Code	4	N	M**	Post Office location code. (Not used but may contain historic data)
CRS Code	3	A	O	
16 character description	16	X	O	description used in CAPRI
Spare	8			

4.11. TIPLOC Amend

Field Name	Size	Format	Mand- atory	Comment
Record Identity	2	A	M	value TA
TIPLOC code	7	X	M	
Capitals Identification	2	N	M	Defines capitalisation of TIPLOC
Nalco	6	N	M	National Location code
NLC check character	1	A	O	
TPS Description	26	X	O	'English' description of location
Stanox	5	N	M*	TOPS location code
PO MCP Code	4	N	M**	Post Office location code. (Not used but may contain historic data)
CRS Code	3	A	O	
16 character description	16	X	O	description used in CAPRI
New TIPLOC	7	X	O	Only present if TIPLOC change
Spare	8			

*Mandatory but can be 00000 if TIPLOC has no STANOX

**Mandatory but can be 0

4.12. TIPLOC Delete

Field Name	Size	Format	Mand- atory	Comment
Record Identity	2	A	M	value TD
TIPLOC code	7	X	M	
Spare	71			

4.13. Trailer Record

Field Name	Size	Format	Mand- atory	Comment
Record Identity	2	A	M	value ZZ
Spare	78			

5. USER DETAILS AND DETERMINING COMPOSITION OF EXTRACTS

5.1. General

- User details, including selection criteria, will be set up and maintained on behalf of the user by the CIF System Controller.
- Changes to a CIF profile will only be made upon receipt of a completed Appendix B/Appendix D. Changes can only be made between the hours of 12:00 – 16:00.
- The user requiring the extract can effectively specify the data that will be received by drawing up selection criteria for their system. The selection criteria identified in the Appendix B/Appendix D form will be used to determine what data is to be extracted for a user.
- Extracts for new and re-activated users, full extracts for active users, and amendments to extract criteria will be made within two working days; see section 2.4 for further detail.
- The following sections are presented in the order they appear on the User Description form (Appendix B) and on the input screen used by the CIF System Controller.

5.2. System Name/User Description

- An identification of the system and/or purpose for which the data is being supplied, e.g. 'CIS Anytown', 'Traffic Analysis System', etc. The user must also supply details of a contact person, together with address, 'phone number, e-mail, etc. This should be the preferred point of contact in case of problems occurring in the provision of the CIF extract file(s) or other current production issues. A generic/central contact address is preferred for continuity.

5.3. FTF Site ID or FTP IP address & logon details

- For FTF transfer, supply site ID (or apply to CIF administrator for new FTF ID)
- For FTP transfer, supply IP address & logon details.
- For local (NR internal) file, leave blank.

5.4. STP

- The user can indicate if Short Term Plan train data is required in the extract or not. If it is not required, schedules will be generated which will not reflect any STP changes made to trains.
- If STP data is required, the user can choose to be either:

(a) an STP user where the schedules provided for the user will reflect STP changes BUT the STP data will not be identified as such to the user.

(b) an Overlay user, where STP data will be identified as such and passed to the user as an overlay of the non-STP or permanent data (i.e. the Permanent data is retained in addition to the Overlay, but the Overlay is assumed to supersede the Permanent position)

N.B. For geographic users, it will be possible to get STP overlays (containing information of interest to the user) for which there is no corresponding permanent schedule. For example, a geographic user based at Edinburgh might be in this position when a Newcastle - London train is amended to start back at Edinburgh on a Bank Holiday.

Conversely, geographic users will also receive overlays that do NOT contain data of interest, where the overlay relates to a permanent schedule that IS of interest.

- If the STP selection indicator is changed the extract will be provided within 48hrs.

Illustration of the 3 approaches to STP data:

ITPS data:

```
+++++ ITPS train runs daily from
      29/05/2000 - 22/09/2000
      ~~~~~
      STP event Saturdays only from
      17/06/2000 - 15/07/2000
```

a) Schedules the CIF non-STP user will receive:

```
===== schedule dates: daily from
      29/05/2000 - 22/09/2000
```

b) Schedules the CIF STP user will receive:

```
===1=== ===2=== ===4===== 1 = schedule: daily from
                                29/05/2000 - 10/06/2000
                                2 = schedule: Mon to Fri
                                12/06/2000 - 14/07/2000
                                3 = schedule: Saturdays
                                17/06/2000 - 15/07/2000
                                4 = schedule: daily from
                                17/07/2000 - 22/09/2000
                                ===3===
```

c) Schedules the CIF STP Overlay user will receive:

```
===== P(ermanent) schedule dates:
      daily 29/05/2000 - 22/09/2000
      ~~~~~
      O(verlay) schedule dates:
      Saturdays 17/06/2000 - 15/07/2000
```

5.5. Reservations Only

- Users can specify if they wish to receive only data relevant to trains that have seat or bicycle reservation facilities. These trains are defined as those schedules with a positive value in the Reservations field of a BS or CR record.

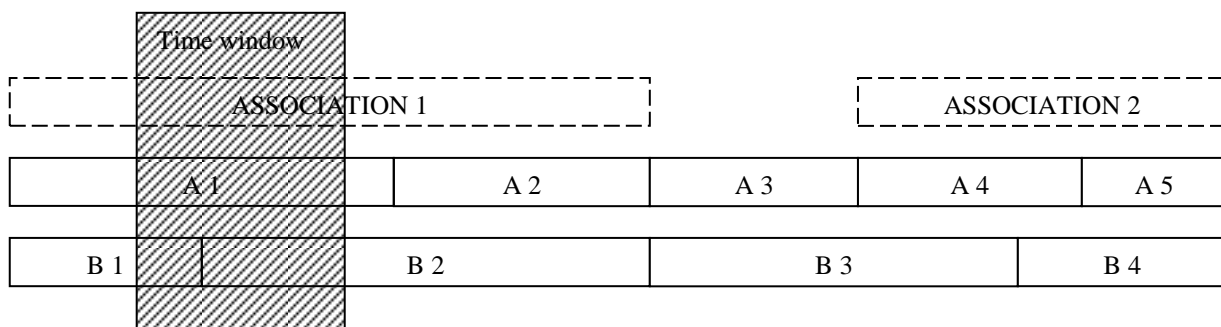
5.6. Associations

- Users can specify if they wish to receive associations or not. It is NOT possible to amend this parameter once a user has been set up. The only option open is to delete the user and create a new one with the required parameters.

Implications:

- Users may receive association information concerning a pair of trains, one of which they have no schedules for. This will result from their selection criteria, which may result in the extraction of one train but exclude the extraction of the train to which the first train is associated.
- A schedule for train A may be associated with one, more than one, a part of one or a combination of part and whole schedules on train B. Depending on the user's time window, the user may not have all the schedules for the trains, to cover the association dates. The user will, however, have all the data required before it becomes current.

e.g. The user will receive the first set of association dates, schedules A1, B1 & B2 but not A2. The association cannot be fully resolved until the time window moves to include A2.



- Where an association only applies for some of the days/dates for which a train runs, separate schedule(s) for the train are not issued for the period(s) that the association applies, if all the other data is constant.
- Note that the availability of association data in CIF is dependent on the presence of associations in ITPS, which varies on a location-by-location basis; for specific information please contact the relevant planning team.

5.7. Output on CD

CDs will no longer be supplied under normal circumstances. Exceptions may be requested from the CIF controller.

5.8. European Data

- It is not currently possible to receive information on Continental European schedules – i.e., services wholly outside the UK - via CIF.
- Where it is required to show Continental locations on through international services – i.e., cross-border traffic - then standard alphanumeric TIPLOC codes will be created for these locations. These services will be considered for inclusion in the CIF on the same criteria as domestic services.

5.9. Train Status Values

- If no train status is specified then trains of all Statuses will be extracted (subject to other extraction criteria).
- Up to 10 different values of train status can be specified. Only trains of this status will be passed to the user. Train status values are:- P, F, T, B, S, 1, 2, 3, 4, 5 (see Appendix A).
- The trains passed to the user may be further restricted by other criteria.
- The first extract after the change is made will be an update that includes all relevant schedules for trains with the new status values. Schedule deletions will be issued for trains previously extracted, but with status values no longer specified.

5.10. Train Category Values

- If no Train Category selections are specified then trains of all Categories will be extracted (subject to other extraction criteria).
- Up to 50 values of Train Category can be specified, selected from the list defined in Appendix A.
- If Ships are required then Category 'SS' must be specified in addition to the relevant Status.
- The first extract after the change is made will be an update that includes all relevant schedules for trains with the new category values. Schedule deletions will be issued for trains previously extracted, but with category values no longer specified.

5.11. Time Window.

The User time window can be specified either as a number of days from the current date or as a period with a specific start and end date.

Note that once a profile has been created, it cannot be changed from time window to fixed dates or vice-versa.

Rolling time window

- For a user time window specified as a number of days, only schedules which start on or before the time limit for the user will be passed on. The user's time limit is equal to the Nth day after the date on which the extract is generated, where N is the number of days specified for the time window; e.g. an extract generated on 03/05/09 for a user with a 7 day time window will include any schedules starting on or before 10/05/09. Each day, the user will therefore get schedules that apply during a time window one day further forward than the previous day.
- Subject to the previous paragraph, if a time window is extended by the CIF System Controller, schedules applicable to the new time window will be contained in the first extract.
- If a time window is reduced, the system will continue to issue schedules for the original time window, reducing by one day every day, until the revised value held on the user profile is achieved. This will ensure that the user can maintain the integrity of data previously extracted within the original time window.

Fixed Start and End Date

- For a user time window specified with a fixed start and end date, only schedules which apply (at least partially) between those dates will be passed on. The dates can be periodically amended by request to the CIF System Controller as required. The start date can be set for the current or any future date.
- Please note that after an end date has been set for a User Id, then this date can not be brought forward.

5.12. Location

- Up to 150 different TIPLOCs can be specified to restrict the data provided on a geographic basis. Only trains that have at least one LO/LI/LT record for any of the nominated TIPLOCs will be included in the user extract file.
- After changing the list of locations, the next extract will be an update that includes all relevant schedules for trains that have events at the new locations. Schedule deletions will be issued for trains previously extracted, but with no events on the new list of locations.
- If no TIPLOCs are specified, the user will be 'non-geographic', and receive all train schedules (subject to the other selection criteria).

5.13. TIPLOC Extract

- Users can specify whether TIPLOC location information is to be included in the file.
- The initial extract will contain details of all codes currently on the TIPLOC file (i.e. a full extract). Updates will then be included (normally on a weekly basis) of any amendments, additions or deletions.
- The User profile can be amended so that TIPLOC updates are no longer received, or to provide a new full extract, without affecting the provision of train schedule and association data.
- Once a user has been amended to receive no TIPLOC updates the next request for location information must again be for a complete full extract.

6. SYSTEM LIMITS

Various limits have been set on the data that can be extracted for a UID from ITPS to CIF; most of these limits should not present any practical constraints on the user. These limits are due to the capabilities of key downstream systems;

- The maximum number of events on a dated schedule (start date + UID) is 150. The maximum number of events on a UID, regardless of date, is 5000.
- The maximum number of schedules that can be created on CIF for a UID is:

200 permanent
and 200 STP

This could theoretically lead to more than 400 schedules in total for an STP user due to the interaction of permanent and STP dates.

- The number of associations is limited to 200 permanent and 200 STP associations for a pair of trains with the same diagram type/location.
- The maximum number of changes-en-route for a schedule is 50.
- Within a permanent schedule, STP data must not cause more than 64 different schedules for an STP user. STP trains that have associations must not have more than 20 sets of dates.
- If any of the system limits are exceeded, the train will be rejected by CIF and a report generated for the CIF System Controller.

In addition, certain other error conditions can be detected on trains valid on ITPS. These will result in error messages to the CIF System Controller and, in some cases, the train being rejected by CIF.

Appendix A: LISTS OF VALID VALUES

Note that these lists are not static; values may be added, amended or deleted as required. The existence of values in the lists does not imply that they are necessarily valid in combination with each other or other fields.

These lists may be updated more frequently than the primary document; please contact Capacity Planning for up to date information.

Removed values should be removed or end-dated in source systems to prevent accidental usage.

ACTIVITY

Up to 6 of : -

A	Stops or shunts for other trains to pass
AE	Attach/detach assisting locomotive
AX	Shows as 'X' on arrival
BL	Stops for banking locomotive
C	Stops to change trainmen
D	Stops to set down passengers
-D	Stops to detach vehicles
E	Stops for examination
G	National Rail Timetable data to add
H	Notional activity to prevent WTT timing columns merge
HH	As H, where a third column is involved
K	Passenger count point
KC	Ticket collection and examination point
KE	Ticket examination point
KF	Ticket Examination Point, 1st Class only
KS	Selective Ticket Examination Point
L	Stops to change locomotives
N	Stop not advertised
OP	Stops for other operating reasons
OR	Train Locomotive on rear
PR	Propelling between points shown
R	Stops when required
RM	Reversing movement, or driver changes ends
RR	Stops for locomotive to run round train
S	Stops for railway personnel only
T	Stops to take up and set down passengers
-T	Stops to attach and detach vehicles
TB	Train begins (Origin)
TF	Train finishes (Destination)
TS	Detail Consist for TOPS Direct
TW	Stops (or at pass) for tablet, staff or token.
U	Stops to take up passengers
-U	Stops to attach vehicles
W	Stops for watering of coaches
X	Passes another train at crossing point on single line

APPLICABLE TIMETABLE SCHEDULE (ATS)

Y	Train is subject to performance monitoring (Applicable Timetable Service)
N	Train is not subject to performance monitoring (Not Applicable Timetable Service)

ATOC Codes

Two-character codes devised by the Association of Train Operating Companies to identify the operator of individual trains.

ATOC Code	Operating Name
AW	ARRIVA Trains Wales
CC	c2c
CH	Chiltern Railway Co.
CS	Serco Caledonian Sleeper Ltd
DC	DC Rail
EM	East Midlands Trains
ES	Eurostar (UK)
GC	Grand Central
GN	Govia Thameslink Railway
GR	National Express East Coast
GT	Glasgow Trains
GW	First Great Western
GX	Gatwick Express
HC	Heathrow Connect
HT	First Hull Trains
HX	Heathrow Express
IL	Island Line
LE	National Express East Anglia
LM	London Midland
LO	London Overground
LT	London Underground
ME	Merseyrail
NT	Northern
NY	North Yorkshire Moors Railway
PT	Europorte 2
RM	Omnicom Engineering
SE	Southeastern
SN	Southern
SR	ScotRail
SW	South West Trains
TL	Govia Thameslink Railway
TP	First TransPennine Express
TW	Tyne & Wear Metro
VT	Virgin Trains
WR	West Coast Railway Co.
WS	Wrexham & Shropshire
XC	CrossCountry
XR	Crossrail
ZZ	Freight & Engineering

BHX

X	Does not run on specified Bank Holiday Mondays.
E	Does not run on specified Edinburgh Holiday dates (no longer used).
G	Does not run on specified Glasgow Holiday dates.

BUSSEC (Portion Id)

Z	Operator-specific usage (formerly Red Star parcels)
0,1,2,4,8	Portion Identifier (used by NRS system)

TRAIN CATEGORY

Ordinary Passenger Trains

OL	London Underground/Metro Service.
OU	Unadvertised Ordinary Passenger
OO	Ordinary Passenger
OS	Staff Train
OW	Mixed

Express Passenger Trains

XC	Channel Tunnel
XD	Sleeper (Europe Night Services)
XI	International
XR	Motorail
XU	Unadvertised Express
XX	Express Passenger
XZ	Sleeper (Domestic)

Buses & Ships

BR	Bus – Replacement due to engineering work
BS	Bus – WTT Service
SS	Ship

Empty Coaching Stock Trains

EE	Empty Coaching Stock (ECS)
EL	ECS, London Underground/Metro Service.
ES	ECS & Staff

Parcels and Postal Trains

JJ	Postal
PM	Post Office Controlled Parcels
PP	Parcels
PV	Empty NPCCS

Departmental Trains

DD	Departmental
DH	Civil Engineer
DI	Mechanical & Electrical Engineer
DQ	Stores
DT	Test
DY	Signal & Telecommunications Engineer

Light Locomotives

ZB	Locomotive & Brake Van
ZZ	Light Locomotive

Railfreight Distribution

J2	RfD Automotive (Components)
H2	RfD Automotive (Vehicles)
J6	RfD Building Materials (UK Contracts)
J5	RfD Chemicals (UK Contracts)
J3	RfD Edible Products (UK Contracts)
J9	RfD Freightliner (Contracts)
H9	RfD Freightliner (Other)
H8	RfD European
J8	RfD General Merchandise (UK Contracts)
J4	RfD Industrial Minerals (UK Contracts)

Trainload Freight

A0	Coal (Distributive)
E0	Coal (Electricity) MGR
B0	Coal (Other) and Nuclear
B1	Metals
B4	Aggregates
B5	Domestic and Industrial Waste
B6	Building Materials (TLF)
B7	Petroleum Products

Railfreight Distribution (Channel Tunnel)

H0	RfD European Channel Tunnel (Mixed Business)
H1	RfD European Channel Tunnel Intermodal
H3	RfD European Channel Tunnel Automotive
H4	RfD European Channel Tunnel Contract Services
H5	RfD European Channel Tunnel Haulmark
H6	RfD European Channel Tunnel Joint Venture

CATERING

Up to 2 of :

C	Buffet Service.
F	Restaurant Car available for First Class passengers.
H	Service of hot food available.
M	Meal included for First Class passengers.
R	Restaurant.
T	Trolley Service.

CLASS (Seating)

(blank)	First & Standard seats.
B	First & Standard seats.
S	Standard class only.

ENGINEERING ALLOWANCE (Recovery Time)

(blank)H for half a minute.

1, 1H through to 9, 9H for one to nine & a half minutes.

10 through to 59 for full minutes only

HEADCODE

Four numerics which form part of the eight digit retail service number used in NRS (New Reservation System). This code may also appear in the National Rail Timetable. The contents of this field are the responsibility of each individual Train Operator.

Not to be confused with TID.

OPERATING CHARACTERISTICS

- | | |
|---|---|
| B | Vacuum Braked. |
| C | Timed at 100 m.p.h. |
| D | Driver Only Operation (Coaching stock trains). |
| E | Conveys Mark 4 Coaches. |
| G | Trainman (Guard) required. |
| M | Timed at 110 m.p.h. |
| P | Push/Pull train. |
| Q | Runs as required. |
| R | Air conditioned with PA system. |
| S | Steam Heated. |
| Y | Runs to Terminals/Yards as required. |
| Z | May convey traffic to SB1C gauge. Not to be diverted from booked route without authority. |

PATHING TIME

(blank)H for half a minute.

1, 1H through to 9, 9H for one to nine & a half minutes.

10 through to 19 for full minutes only.

PERFORMANCE ALLOWANCE

(blank)H for half a minute.

1, 1H through to 9, 9H for one to nine & a half minutes.

POWER TYPE

D	Diesel. (NB: also used for ships, buses, and steam locomotives)
DEM	Diesel Electric Multiple Unit. Diesel Mechanical Multiple Unit (N.B. Unit type may be further qualified. See 'Timing Load')
DMU	
E	Electric.
ED	Electro-Diesel.
EML	EMU plus D, E, ED locomotive.
EMU	Electric Multiple Unit.
HST	High Speed Train.

RESERVATIONS

A	Seat Reservations Compulsory (R symbol in white box).
E	Reservations for Bicycles Essential (Inverted black triangle)
R	Seat Reservations Recommended (R symbol in black box).
S	Seat Reservations possible from any station (white diamond symbol).

SERVICE BRANDING

E	Eurostar.
---	-----------

SLEEPERS

B	First & Standard Class
F	First Class only.
S	Standard Class only.

STATUS

B	Bus (Permanent).
F	Freight (Permanent - WTT).
P	Passenger & Parcels (Permanent - WTT).
S	Ship (Permanent).
T	Trip (Permanent).
1	STP Passenger & Parcels.
2	STP Freight.
3	STP Trip.
4	STP Ship.
5	STP Bus.

TIMING LOAD

DMU Type Codes :

Diesel Mechanical Multiple Units (Air Brake):

A	Class 14x series 2-axle
E	Class 158, 168, 170, 172, 175
N	Class 165
S	Class 150, 153, 155 or 156
T	Class 165/1 or 166
V	Class 220/221; Bombardier DMU
X	Class 159

DMU/DPU Power Weight Codes :

Diesel Mechanical Multiple Units (Vacuum Brake):

D1	Power car + trailer
D2	2 power cars + trailer
D3	Power twin

EMU Codes :

Up to three- numerics (0 - 999) usually indicating the specific type of EMU (e.g. 321, 315).

There are occasional exceptions to this rule.

Hauled Train (D, E or ED) Planned Load.

1 - 9999 Load in Tonnes.

(1 - 999 only with ED).

Appendix B: THE COMMON INTERFACE FILE: USER DESCRIPTION FORM

Please note Appendix B must be completed for any alteration to the CIF Profile.

Two working days should be allowed for processing of requests.

To: Planning Systems Support Team
Network Rail
The Quadrant: MK

From:

Email: pss-team@networkrail.co.uk

Date:

I wish to make the following amendments to the Common Interface File. . Prospective new users should choose a 4-character reference & the CIF controller will assign a 2-character prefix to maintain uniqueness.

NB: the range CFI000 to CFI999 is reserved for IECC TTP use.

System Name/User Description:	
Contact Details:	Name _____ Address _____ _____ _____ Telephone: _____ E-mail address: _____

Extract Requirements

FTF Site ID or FTP IP address & logon details						
STP Data Required (<i>Highlight option required</i>):					YES/NO/OVERLAY	
Reservable Trains only (<i>Highlight option required</i>):					YES/NO	
Associations Required (<i>Highlight as required</i>)					YES/NO	
<i>Note: this parameter cannot be amended after initial set-up.</i>						
Train Status Values (<i>Highlight those required</i>):					P F T B S 1 2 3 4 5	
Category Values (<i>Highlight those required</i>):						
A0 B0 B1 B4 B5 B6 B7 BR BS DD DH DI DQ DT DY E0 EE EL ES						
H0 H1 H2 H3 H4 H5 H6 H8 H9 J2 J3 J4 J5 J6 J8 J9						
OL OO OS OU OW PM PP PV SS XC XD XI XJ XR XU XX XZ ZB ZZ						
Time Window: Number of Days or						
Start Date / / and End date / /						
Locations Required for Geographical User (TIPLOCs):						
Up to 150 locations are permissible - use supplementary sheet if necessary.						

Appendix C: NOTES FOR COMPLETION OF CIF USER DESCRIPTION FORM

Additional information concerning the Common Interface File, extract criteria and file contents can be found in the CIF End User Specification.

User Details

User ID: Enter a four character reference to identify the CIF User record. The CIF controller will assign a 2-character prefix to ensure uniqueness. NB: the range CFI000 to CFI999 is reserved for IECC TTP use.

System Name/User Description: Enter the name of the system or user for which the data is being supplied.

Contact Details: Enter the name, address and telephone number of a nominated contact responsible for the system for which the data has been provided. This should be the preferred point of contact in case of problems occurring in the provision of the CIF extract file(s).

Extract Requirements

FTF site ID or FTP IP address & logon details: For FTF transfer, supply site ID (or apply to CIF administrator for new FTF ID). For FTP transfer, supply IP address & logon details. For local (NR internal) file, leave blank.

STP Data Required: Values Yes, No or Overlay (Y/N/O). To indicate whether Short Term Plan (i.e. Special Traffic) train data is required. The Overlay option will provide STP data in addition to the base WTT timetable information. Highlight value required. N.B. Selection of the Yes or Overlay option will provide STP amendments to permanent schedules in addition to complete STP schedules (i.e. those with a numeric Train Status). See End User Specification for more details.

Reservable Trains Only: Values Yes or No (Y/N). To indicate whether only trains with reservation facilities are required. Highlight value required.

Associations Required: Values Yes or No (Y/N). To indicate whether Train Association data is required. This parameter cannot be amended once the User has been set up. Highlight value required.

Train Status Values: The Train Status defines in general terms the type of trains that will be extracted. The values are defined in Appendix A of the CIF end user specification. Highlight those values required.

Train Category Values: Train Category defines more specifically what type of trains will be extracted. The values are defined in Appendix A of the CIF end user specification. Highlight those values required.

N.B. If all Train Categories are required it is not necessary to circle any values. The extract will then be based on the Train Status values requested and will include all trains with those values whatever the Train Category.

Time Window: Enter either a number of days or start date and end date.

If number of days is specified only schedules that start on or before the user's time limit will be included in the extract file. This time limit is defined as the nth day after the day on which the extract is produced, where 'n' is the number of days specified. Each day the User will therefore receive schedules that apply during a time window one day further forward than the previous day.

If start and end date are specified, only schedules which apply (completely or partially) between those dates will be included in the extract file. The start date can be set for the current or any future date.

Locations Required for Geographical User: Up to 150 TIPLOC location codes can be entered to define the specific area for which data is required. Attach supplementary sheets if necessary. If no TIPLOCs are entered then all data that matches the train selection criteria will be extracted.

Appendix D: THE COMMON INTERFACE FILE: EXTRACT REQUEST FORM

Please note Appendix D must be completed for all CIF requests.

Two working days should be allowed for processing of requests.

To: Planning Systems Support Team
Network Rail
The Quadrant: MK

From:

Email: pss-team@networkrail.co.uk

I wish to make the following request with regard to extracts from the Common Interface File, for:

User ID: _____

System Name: _____

(**Tick the boxes** on the left hand side to indicate requirements and enter the date(s) where appropriate on the right hand side):

	<p>1) Amend the User Profile from the following date ____/____/____</p> <p>Select when ANY alteration is made to a profile through submitting an Appendix B.</p>
	<p>2) Receive a new FULL extract on the following date ____/____/____</p> <p>Select to receive a Full Extract of the WTT Timetable. Followed by daily updates unless account made dormant.</p>
	<p>3) Make the User dormant on the following date ____/____/____</p> <p>Select to make your account dormant and no longer receive CIF files.</p>
	<p>4) Reinstate the User (Which is dormant) on the following date ____/____/____</p> <p>Select this to reinstate an account which has been made previously dormant.</p>
	<p>5) Delete the User from the following date ____/____/____</p> <p>Select this to delete a user account. (This cannot be reversed)</p>
	<p>6) Receive a new full TIPLOC extract on ____/____/____</p> <p>Select this to receive additional information of all TIPLOCS within the CIF.</p>
	<p>7) Cease to receive TIPLOC update information from the following date ____/____/____</p> <p>Select this to cease to receive additional TIPLOC information within the CIF.</p>

Appendix E: EXAMPLES OF COMMON INTERFACE FILE DATA FORMAT**Full Extract containing LTP data only;**

```

HDTFS.UCFNAID.PD0901101001092023CFNAIDJCFNAIDIFA100109061209
AANC00005C002700812140905100000001NPSHTRWTM4 TO
AANC00008C002730812140905100000001NPSHTRWTM4 TO
BSNC167600812140901250000001 PEE5C30 125370002 HST 125
BX GWY
LOPADTON 2107 00001 TB
LILDBRKJ 2110 00000000 ML
LIACTONW 2113 00000000
LISTHALL 2115H00000000 2H
LIHTRWAJN 2119H00000000
LIDOLPHNJ 2125H00000000 1H
LISLOUGH 2127H00000000 1
LIMDNHEAD 2131H00000000
LITWYFORD 2134H00000000 1 5
LIRDNGSTN 2144 000000004 1
LIREDGWJN 2146 00000000 RL 1
LIDIDCTEJ 2158 00000000
LIDIDCOTP 2158H000000003
LIFOXHALJ 2159 00000000 ML 1
LIWANTRD 2206 00000000
LICHALLOW 2208 00000000
LIUFNGTN 2209 00000000 1 3
LISDON 2219H000000004
LIWTNBSTJ 2224H00000000 1 3
LICHIPNHM 2234 00000000 2
LITHNGLEJ 2236H00000000
LITHNGLYJ 2237 00000000 1
LIBTHMPTJ 2243H00000000 3
LIBATHSPA 2248H000000001 1 1
LINSMRSTJ 2258 00000000
LIBRSTLEJ 2259 00000000 DM
LIBRSTLTJ 2300H2307H 0000000013 OPRM
LIBRSTLEJ2 2308H00000000
LINSMRSTJ2 2311 00000000
LTSTPHHST 2321 0000 TF

```

Full Extract containing LTP and STP data (Overlay user);

```

HDTFS.UCFT12U.PD0901090901092241CFT12UMCFT12ULFA090109030409
AANC00005C0027008121409051000000001NPSHTRWTM4 TO P
AANC00008C0027308121409051000000001NPSHTRWTM4 TO P
BSNL8019508121409051000000001 PXX1B16 122711000 EMU319 100D B P
BX FCY
LOBRGHTN 0916 09165 TB
LIPRSP 0918H0000000002 H
LIBURGESH 0925H0926 09260926 T
LIKEYMERJ 0927H000000000
LIHYWRDSH 0930 0931 093009313 T
LIBALCMTJ 0937H000000000 FL
LITHBDGS 0939H0940 094009404 T
LIGTWK 0943H0945 094409454 T H
LIEARLSWD 0950H000000000 QL H
LISNSTJN 0957 00000000 FL QL
LIPURLEY 0957H0000000001 H
LIECROYDN 1001 1002 100110022 RVF T
LIWNDMLBJ 1003 00000000 FL H
LINORWDJ 1004H0000000003
LISYDENHM 1006H000000000
LIBRCKLAJ 1010H000000000
LISPAROAD 1012 00000000 2H
LTLNDNBDC 1017 10178 TF
BSNL8019509020809020800000001 PXX1B16 122711000 EMU319 100D B O
BX FCY
LOBRGHTN 0916 09165 TB
LIPRSP 0918H0000000002 H
LIBURGESH 0925H0926 09260926 T
LIKEYMERJ 0927H000000000
LIHYWRDSH 0930 0931 093009313 T
LIBALCMTJ 0937H000000000 SL
LITHBDGS 0939H0940 094009402 T
LIGTWK 0943H0945 094409451 T H
LIEARLSWD 0950H000000000 QL H
LISNSTJN 0957 00000000 FL QL
LIPURLEY 0957H0000000001 H
LIECROYDN 1001 1002 100110022 RVF T
LIWNDMLBJ 1003 00000000 FL H
LINORWDJ 1004H0000000003
LISYDENHM 1006H000000000
LIBRCKLAJ 1010H000000000
LISPAROAD 1012 00000000 2H
LTLNDNBDC 1017 10178 TF

```

Full Extract containing LTP and STP data (STP user);

```

HDTFS.UCFRTIT.PD0901090901092121CFRTITYCFRTITXFA090109090110
AANC04369C040830812140901250000001NPSPADTON    TO
AANC04373C040870812140901250000001NPSPADTON    TO
AANC04377C040910812140901250000001NPSPADTON    TO
BSNW703520812140901110000001 PXX1D6517  124673305 EMU      075      S
BX          SWY
LOWATRLMN 2102 21021 MSL 1 TB
LIVAUHLM 2106 2107      21062106      T
LICLPHMJM 2111 2112      2111211111 SL  T
LIERLFLD 2115 2115H      21142114      T
LIWDON    2118H2119H      211821188      T
LIRAYNSPK 2122 2122H      21222122      T
LIMOTSPRP 2124H2125      21252125      T
LIWRCSTRP 2127 2127H      21272127      T
LISTLEIGH 2130 2130H      21302130      T
LIEWELW   2132H2133      21332133      T
LIEPSM    2136 2138      213621382      T
LIASHD     2141H2142      21422142      T
LILETHRHD 2144H2145      21452145      T
LTDORKING 2151 21513      TF
BSNW703520901180901180000001 PXX1D6517  124673305 EMU      075      S
BX          SWY
LOWATRLMN 2102 21024 MSL 1 TB
LIVAUHLM 2106 2107      21062107      T
LICLPHMJM 2111 2112      2111211211 SL  T
LIERLFLD 2115 2115H      21152115      T
LIWDON    2118H2120H      211921208      T
LIRAYNSPK 2123 2123H      21232123      T
LIMOTSPRP 2125H2126      21262126      T
LIWRCSTRP 2128 2128H      21282128      T
LISTLEIGH 2131 2131H      21312131      T
LIEWELW   2133H2134      21342134      T
LIEPSM    2137 2138      213721382      T
LIASHD     2141H2142      21422142      T
LILETHRHD 2144H2145      21452145      T
LTDORKING 2151 21513      TF

```