Interface Control Document

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Revision History			
Version	**Date**	**Author's Initials**	**Description of Change**
1.0	06/21/2005	ML / PD / KH	Initial Formal Document • Consolidates Prior Informal Documents and Emails • FADT Format Effective ETMS/FSM 8.02
1.1	06/28/2005	ML	Removed Changes Deferred To 8.2 Release
2.0	08/25/2005	ML / KH	Initial incorporation of ETMS / FSM 8.2 Changes • Airspace Flow Programs • Combine FA and Slot Lists Sub-Files
2.1	10/7/2005	ML / KH	• Incorporated Miscellaneous Corrections & Clarifications • Modified Slot List Format To Show ERTA on GDP List and EENTRY on AFP List
2.2	12/14/2005	ML	• Incorporated Miscellaneous Corrections • Clarified Usage of START_TIME and END_TIME • Modified Usage of Cumulative Start and End Time for Ground Stops • Modified Format of Various Time/Date Fields • Clarified Applicability of Data Blocks • Modified Usage of DAS Block for Ground Stops and Programs With Delay Mode of GAAP • Clarified B6 Block Construction When Flights With a Null DCENTER Are Present
2.3	1/27/2006	ML / PD	• Modified FCA identification format from FCAddd to FCAccc • Clarified Usage of SH Field • Clarified Usage of RCTL Control Type • Added Header Line to *.edct Primary Sub-File and *.e2hub.1 Secondary Sub-File
2.4	3/7/2006	ML	• Updated Sub-Files Section to Reflect ATS as Built • Added *.al.xxx.l Secondary Sub-File

In conjunction with the release of ETMS and FSM version 8.2, the format of the FADT file will be changing. This document describes the new format. It will be effective upon the operational deployment of ETMS and FSM 8.2. At such time, this document will supersede all previous versions of this document.

The body of the document has been fully updated to match the new format. Following is a summary list of the specific FADT items that have changed:

- The legacy block is no longer provided.

- New keywords are now provided and others have been changed or eliminated in the PARAMETERS block. These keywords replace elements of the legacy block and/or provide support for Airspace Flow Programs (AFP).

  § CTL_ELEM
  § REPORT_TIME
  § DELAY_MODE replaces POPUP_MODE
  § DELAY_MODE value FA changed to DAS
  § CUMULATIVE_START_TIME
  § CUMULATIVE_END_TIME
  § AFP_OVERRIDE

- The format of slot names in the UNASSIGNED_SLOTS Block has been changed to support AFP.

- A CTL_TYPE of AFP has been added.

- New keywords are now provided in the EXEMPTIONS and NON_EXEMPTIONS blocks. These keywords provide support for AFP.

  § AIRPORT_ORIG (replaces AIRPORT)
  § AIRPORT_DEST
  § CENTER_ORIG (replaces CENTER)

- A new DAS Delay block is provided. This replaces information previously provided in the legacy block

- The format of the B6 and B8 sections has been modified to support AFP

  § The format of the ASLOT field has been modified
  § The ARR field has been added to all slot lists
  § CTL_TYPE FA is changed to DAS
  § AFP Slot List Include EENTRY
  § GDP Slot Lists Include ERTA

- A B9 section is now provided. This section provides slot lists in an alternative format for transmission via ARINC TTY. The B9 sections will be transmitted to users who received slot lists via ARINC while the B8 section will be transmitted to users who received slots lists via CDMnet.

- The *.e2hub1 secondary sub-file has been modified to include all data needed by the Hubsite EDCT process to implement a program.

- The *.al primary sub-file has been modified to include both B8 and B9 formatted slot lists.

- The *.al.xxx secondary sub-file has been modified to include B9 formatted slot lists.

- The *.al.xxx.l secondary sub-file has been added to include B8 formatted slot lists.

- References to FA delays within all sub-files have been converted to DAS.

- The *.as.ab secondary sub-file has been eliminated (the data has been incorporated into the *.e2hub1 secondary sub-file).

- Additional logic for including flights in the B6, B8, and B9 sections is provided to support Airspace Delay Programs.

- Numerous clarifications have been added throughout the document.

Introduction

The ADL is the data product that drives FSM and the ETMS Ground Delay Program Enhancements operations. The ADL is composed of data extracted from the ETMS hub site databases, which are maintained with a combination of OAG data, airline-provided flight data messages, NAS messages generated from the ATC system, and issued ground delays (EDCTs). The ADL also includes GDP-specific data entered by the traffic management specialist using FSM. The purpose of this memo is to describe the contents of the ADL file in detail.

- Part 1 - General Description: Provides an overview of the FADT.

- Part 2 – Data Blocks: Describes the data blocks provided in the FADT.

- Part 3 – Slot Lists: Describes the slot lists provided in the FADT.

- Part 4 – Sub Files: Describes the sub files create from the FADT by Autosend.

Terminology

The following common terminology is utilized throughout this document;

- "NAS User"

  An airline, cargo carrier, general aviation (GA) pilot, military, or anyone else who operates aircraft in the National Airspace System (NAS). A NAS User is not required to be a CDM Participant in order to submit substitutions.

- "CDM Participant"

  A subset of NAS Users who participates in the CDM process by submitting schedule data and substitutions to the ETMS system.

- "FAA User"

  A traffic manager or other member of the FAA that uses ETMS/FSM. This also includes other ATC service providers, such as Nav Canada, who make use of ETMS/FSM.

- "Authorized FAA User"

  FAA Users who are authorized to perform specific restricted functions such as issuing a TMI. This also includes other ATC service providers, such as Nav Canada, who make use of ETMS/FSM.

- "Any User"

  Any user of ETMS/FSM regardless of their affiliation (ATC service provider or NAS User).

- "Initial Program"

  The initial issuance of an AFP or GDP to manage flights arriving at an airport or FCA. Slot allocation is based principally on arrival at the controlling element.

- "Revised Program"

The revision of an AFP or GDP that is already in place. This revision can be simply to change the rate, scope, or a modification in start / end times which extend or reduce the time frame of the program. Revisions replace existing slots with new slots during the time frame of the revision.

- "Compression"

  The compression of an initial or revised AFP or GDP. A compression reallocates slots which are open due to flight cancellations or delays. Compressions do not create new slots, but simply reallocate existing slots.

- "Blanket"

  The blanket adjustment of a GDP that is already in place. A blanket reduces or increases delay times, based on a user specified value, without consideration of the airport rate.

- "Ground Stop"

  The issuance of a traffic stop. Ground Stops differ from an Initial or Revised GDP in that slot allocation is based on a specified earliest departure time (i.e. the Ground Stop Time).

- "Purge"

  The cancellation of a TMI. The purge process removes from ETMS all TMIs currently in place for a specific element.

- "Traffic Management Initiative" or "TMI"

  These terms refer to the domain of all FSM events (Initial, Revision, Compression, Blanket, Ground Stop and Purge) whether they are for an airport (GDP) or FCA (AFP).

- "Ground Delay Program" or "GDP"

  These terms refer to only to the domain of Airport Ground Delay Program events (Initial, Revision, Compression, Blanket, Ground Stop and Purge).

- "Airspace Flow Program" or "AFP"

  These terms refer only to the domain of Airspace Flow Program events (Initial, Revision, Compression and Purge).

- Specific Program Type.

  Any reference to a specific type of AFP or GDP event shall be spelled out by hyphenating the General and Specific TMI Type;

Specific to GDP Events	Specific to AFP Events	Both GDP and AFP Events
GDP-Initial	AFP-Initial	AFP/GDP-Initial
GDP-Revision	AFP-Revision	AFP/GDP-Revision
GDP-Compression	AFP-Compression	AFP/GDP-Compression
GDP-Blanket	n/a	n/a
GDP-Ground Stop	n/a	n/a
GDP-Purge	AFP-Purge	AFP/GDP-Purge

References

The following documents are useful in understanding the contents of this document.

1. *Aggregate Demand List (ADL) / FSM Broadcast Data Formats - Version 10 Revision 6.*

1. General Description

1.1. Contents

A FADT file contains all data pertinent to implementing a TMI for a particular Control Element (i.e. an airport or FCA). A particular FADT includes both the data for implementation of the TMI within NAS automation and the various notification messages transmitted to NAS users. The data provided can include the following items. [NOTE: The data block name for each item is shown in square brackets.]

- The parameters defining the program [PARAMETERS]

- Any unassigned slots for the program [UNASSIGNED_SLOTS]

- The include only criteria for the program [INCLUDE_ONLY]

- The flight exemptions for the program [EXEMPTIONS]

- The flight non-exemptions for the program [NON_EXEMPTION]

- The DAS delays for pop-up flights [DAS]

- The B6 Slot List [B6 LIST REPORT]

- The B8 Slot List [B8 LIST REPORT]

- The B9 Slot List [B9 LIST REPORT]

1.2. File Naming

FSM uses a file naming convention that facilitates users who are trying to find particular files in a directory full of data files.

A file name consists of three parts separated by periods (.):

- the report type; four characters; for FADT files, type is "fadt"

- the element identifier for which the data was generated; six characters with trailing blanks filled with underscores (_);

- the report time; 8 digits; ddhhmmss

All letters in a file name are lower case.

For example;

An FADT file generated for a BOS Airport GDP on February 6 at 15:35:33 Z would be named:

fadt.bos___.06153533zz

An FADT file generated for a CYYZ Airport GDP on March 12 at 17:36:42 Z would be named:

fadt.cyyz__.12173642zz

An FADT file generated for a FCA027 FCA AFP on July 27 at 18:36:24 Z would be named:

fadt.fca027.27183624zz

1.3. Organization

A FADT file consists of two main parts: the data blocks and the slot lists. The data block section consists of multiple blocks of data delimited by keywords. Each data block starts with a keyword "START_xxx" where "xxx" is the mnemonic indicating the data type. Each data block ends with a corresponding "END_xxx" keyword.

The use of the "START" and "END" keywords is designed to make its easier to keep backwards compatibility when new data is added to the file. When a software program encounters a "START" keyword, it should check to see if the keyword is one which the program recognizes. If not, the program should discard lines until it reaches the corresponding "END" keyword. Within each block applications should also check to see if each keyword is one that the program recognizes. If not, the program should discard that keyword and value.

1.4. General Formatting

The following field descriptions are utilized within this document:

- Fields which allow null values use the character '-'.

- Field syntax is given in an abbreviated shorthand using the following conventions:

  - L – represents one upper-case letter

  - d – represents one digit

  - c – represents one alphanumeric character (either letter or digit); by convention, only upper case letters are allowed

  - [] – means the characters within are optional; any characters not shown in brackets are required

  - Example: Ldd[cc] means an upper case letter followed by two required digits and zero, one, or two characters.

1.5. Default Assumptions

ETMS makes certain assumptions regarding which Centers are included in a program. ETMS utilizes the default assumption that all Continental Unites States (CONUS) and Canadian Centers are included. These facilities therefore do not need to be listed in the NON_EXEMPT data block. Facilities considered by ETMS to be default non-exempt facilities would only need to be listed as NON_EXEMPT if the user wished to include them and they are subject to some other more global EXEMPTION criteria, such as distance, that would make them exempt. This assumption applies to both departure centers for airport programs and both departure and arrival centers for AFP programs.

The following twenty CONUS Centers are by default considered Non Exempt;

- ZAB   Albuquerque Center
- ZAU   Chicago Center
- ZBW   Boston Center
- ZDC   Washington Center
- ZDV   Denver Center
- ZFW   Fort Worth Center
- ZHU   Houston Center
- ZID   Indianapolis Center
- ZJX   Jacksonville Center
- ZKC   Kansas City Center
- ZLA   Los Angeles Center
- ZLC   Salt Lake City Center
- ZMA   Miami Center

- ZME   Memphis Center
- ZMP   Minneapolis Center
- ZNY   New York Center
- ZOA   Oakland Center
- ZOB   Cleveland Center
- ZSE   Seattle Center
- ZTL   Atlanta Center

The following seven Canadian Centers are by default considered Non Exempt;

- CZY   Toronto Center
- CZU   Montreal Center
- CZW   Winnipeg Center
- CZM   Monkton Center
- CZQ   Gander Center
- CZE   Edmonton Center
- CZV   Vancouver Center

1.6. Usage

The section discusses the usage of the FADT, specifically indicating which flight should be listed in a FADT for a particular event.

1.6.1. GDP Events

- For a Initial or Revision GDP

All included flights are listed.

- For a Compression

All included flights are listed. Flights unchanged by the compression retain their prior CTL_TYPE.

- For a Blanket

All included flights are listed. Flights unchanged by the blanket retain their prior CTL_TYPE.

- For a Ground Stop

Only affected flights are listed.

1.6.2. AFP Events

- For an Initial or Revision AFP

All flights whose control element matches the element for which this AFP is being issued. This includes cancelled and active flights. The CTL_TYPE of flights not modified by the event is simply carried over from the ADL and not modified.

- For a Compression

All flights whose control element matches the element for which this AFP is being issued. This includes cancelled and active flights. The CTL_TYPE of flights not modified by the event is simply carried over from the ADL and not modified.

2. FADT Data Blocks

These FADT data blocks provide general information about the characteristics of the GDP event defined by the file. The various blocks are used by ETMS to determine to which flights DAS or GAAP delays should be applied. The FADT data blocks are formatted similarly to the various blocks contained in the ADL, that is:

- Each block will be framed by a "START" and "END" line.

- Within each block will be one or more lines containing a keyword and value pair on each line.

- Lines within a data block are indented by at least one column.

- There will be at least one space separating the value from the keyword.

- Each keyword-value pair will be on a separate line, using multiple lines if a keyword requires several values.

- Each block is either optional or required.

- There will be no blank lines within a data block.

- All blocks will be listed prior to the beginning of the Slot Lists.

- There is no specified ordering to the blocks.

- Each block will have only one instance in a specific FADT.

- Each block will be separated from other blocks by at least a single blank line.

2.1. Parameters

The PARAMETERS block is a required block within the FADT for all TMI types. The following keywords are available for use in the PARAMETERS block:

- **CTL_ELEM** – This is a required keyword which defines the element name for the program defined by the file. The element name can be an airport for GDPs or an FCA for AFPs.

- **REPORT_TIME** – This is a required keyword which defines the report time of the FADT. This will be the same time used within the FADT file name and the names of other files associated with this program issuance. The value shall be in the format of ddhhmmss.

- **TYPE** – This is a required keyword which defines the type of traffic management initiative defined by that FADT. The valid TYPE values are determined based on whether this is a GDP or AFP;
  - **For GDPs**
    - § GDP, GS, BLKT, or COMP
  - **For AFPs**
    - § AFP or COMP

- **DELAY_MODE** – This is a required keyword which defines the delay assignment algorithm which should be used by the ETMS Hubsite for processing pop-up flights. The only valid values are GAAP and DAS. If the keyword value is GAAP then a UNASSIGNED_SLOTS block is required to be included in the FADT.

- **START_TIME** – This is a required keyword that defines the start time of the traffic management initiative contained in that FADT. The FADT can define a TMI in which the start time is later then the cumulative start time. For GDP-Ground Stops the START_TIME is based on flight ETAs, for all other TMIs it is based on the flights ETDs. The value shall be in the format of yyyymmddhhmm.

- **END_TIME** – This is a required keyword that defines the end time of the traffic management initiative contained in that FADT. The FADT can define a TMI in which the end time is earlier or later then the cumulative end time. For GDP-Ground Stops the END_TIME is based on flight ETAs, for all other TMIs it is based on ETDs. The value shall be in the format of yyyymmddhhmm.

- **CUMULATIVE_START_TIME** – This is a required keyword that defines the absolute start time of the combined traffic management initiatives that have been issued for this element (e.g., airport). For example, if a GDP is issued and then later revised, the CUMULATIVE_START_TIME will contain the earliest of the START_TIMES issued for that GDP and revision. The value shall be in the format of yyyymmddhhmm.

  - The cumulative start time is updated based on the following rules;

    - § AFP/GDP-Revisions will update the cumulative start time if the new start time is earlier then the prior cumulative start time.

    - § AFP/GDP-Compressions never alter the cumulative start time.

    - § GDP-Blankets never alter the cumulative start time.

    - § GDP-Ground Stop without a concurrent GDP, the cumulative start will be the same as the GS start time.

    - § GDP-Ground Stop with a concurrent GDP, the cumulative start will be the cumulative start of the GDPs.

- **CUMULATIVE_END_TIME** – This is a required keyword that defines the absolute end time of the combined traffic management initiatives that have been issued for this element (e.g., airport). For example, if a GDP is issued and then later revised, the CUMULATIVE_END_TIME will contain the latest of the START_TIMES issued for that GDP and revision. The value shall be in the format of yyyymmddhhmm.

  - The cumulative end time is updated based on the following rules;

    - § AFP/GDP-Revisions will update the cumulative end time if the new end time is later then the prior cumulative end time.

    - § AFP/GDP-Compressions never alter the cumulative end time.

    - § GDP-Blankets never alter the cumulative end time.

    - § GDP-Ground Stop without a concurrent GDP, the cumulative end will be the same as the GS end time.

    - § GDP-Ground Stop with a concurrent GDP, the cumulative end will be the cumulative end of the GDPs.

- **DELAY_LIMIT** – This is an optional keyword required when the DELAY_MODE is GAAP. It shall not be listed for any other program type. The keyword defines the number of additional minutes of delay that can be added to Pop-Up flights during GAAP GDPs. The value shall be in the format of MMM.

Sample PARAMETERS for GDP events:

```
START_PARAMETERS
 CTL_ELEM EWR
 TYPE GDP
 REPORT_TIME 26121535
 DELAY_MODE DAS
 START_TIME 200504261400
 END_TIME 200504261744
 CUMULATIVE_START_TIME 200504261400
 CUMULATIVE_END_TIME 200504261744
END_PARAMETERS
```

Sample PARAMETERS for GDP with a DELAY_MODE of GAAP:

```
START_PARAMETERS
 CTL_ELEM TEB
 TYPE GDP
 REPORT_TIME 26121535
 DELAY_MODE GAAP
 START_TIME 200504261400
 END_TIME 200504261744
 CUMULATIVE_START_TIME 200504261400
 CUMULATIVE_END_TIME 200504261744
 DELAY_LIMIT 120
END_PARAMETERS
```

Sample PARAMETERS for COMPRESSION during a GAAP:

```
START_PARAMETERS
 CTL_ELEM EWR
 TYPE COMP
 DELAY_MODE GAAP
 START_TIME 04261400
 END_TIME 04261744
 CUMULATIVE_START_TIME 200504261400
 CUMULATIVE_END_TIME 200504261744
 DELAY_LIMIT 120
END_PARAMETERS
```

Sample PARAMETERS for an AFP:

```
START_PARAMETERS
 CTL_ELEM FCA027
 TYPE AFP
 DELAY_MODE DAS
 START_TIME 200504261400
 END_TIME 200504261744
 CUMULATIVE_START_TIME 200504261400
 CUMULATIVE_END_TIME 200504261744
END_PARAMETERS
```

2.2. Unassigned Slots

The UNASSIGNED_SLOTS block will be present only if the DELAY_MODE of GAAP is used. The block contains a list of unassigned slots that have not yet been allocated to flights. Each line within the block may contain up to 50 unassigned slots. If the DELAY_MODE of GAAP is used and there are no unassigned slots, the block is still required but shall contain the value NONE. The formatting of this block is identical to the unassigned slots block contained in the ADL.

A sample UNASSIGNED_SLOTS block for a GDP follows:

```
START_UNASSIGNED_SLOTS
 EWR.191232A EWR.191233A EWR.191234A EWR.191235A EWR.191236A EWR.191237A
 EWR.191240A EWR.191241A EWR.191242A EWR.191243A EWR.191244A EWR.191245A
 EWR.191248A EWR.191249A EWR.191250A EWR.191251A EWR.191252A EWR.191253A
END_UNASSIGNED_SLOTS
```

A sample UNASSIGNED_SLOTS block for an AFP follows:

```
START_UNASSIGNED_SLOTS
 FCA027.191233A FCA027.191234A FCA027.191235A FCA027.191236A FCA027.191237A
 FCA027.191241A FCA027.191242A FCA027.191243A FCA027.191442A FCA027.191245A
 FCA027.191249A FCA027.191250A FCA027.191251A FCA027.191252A FCA027.191253A
END_UNASSIGNED_SLOTS
```

A sample empty UNASSIGNED_SLOTS block:

```
START_UNASSIGNED_SLOTS
 NONE
END_UNASSIGNED_SLOTS
```

2.3. Include_Only

The Include_Only block defines exclusions (flights that will receive no control time) from DAS delay processing. The Include_Only block is only applicable to GDPs for an airport and may not be utilized for AFPs. Exclusions take precedence over all exemptions or non-exemptions criteria. For example, if the DAS delays are for "props only", ETMS will only assign DAS delays to props regardless of what is specified in the Exemptions or Non-Exemptions blocks. The Include_Only block provides for the following keywords:

- **AIRLINE** - Any NAS User defined as a major carrier in the airline definitions file may be used. Any airline that is a subcarrier to that major will also be included. Only one airline may be specified.

- **ARRIVAL_FIX** - Any arrival fix defined in ETMS may be used. A maximum of four fixes may be specified.

- **TYPE** - Valid types are "JET" or "PROP". If "PROP" is specified, ETMS will include both piston and turbo props. Only one type may be specified.

The Include_Only block is used when the GDP issued applies to a subset of flight such as only props, only jets, only flights arriving over specific fixes, or only flights of a specific major carrier. When Include_Only constraints are used FSM applies the AAR only to the included flights and not to other flights which may be arriving within the same timeframe.

A sample INCLUDE_ONLY block:

```
START_INCLUDE_ONLY
 TYPE PROP
 ARRIVAL_FIX SADDE
 AIRLINE AAL
END_INCLUDE_ONLY
```

2.4. Exemptions

The Exemptions block defines exemptions (flight that will receive control times but no additional delay) from DAS delay processing. The Exemptions Only block provides for the following keywords:

- **AIRPORT_ORIG -** Specifies any valid ETMS airports from which originating (departing) flights are exempt from DAS delays. An airport exemption has precedence over a center or distance exemption. A maximum of twenty-four airports may be specified.

- **AIRPORT_DEST** - Specifies any valid ETMS airports to which destination (arrival) flights are exempt from DAS delays. An airport exemption has precedence over a center or distance exemption. This keyword may only be used for AFPs. A maximum of twenty-four airports may be specified.

- **CENTER_ORIG** - Specifies complete centers from within which originating (departing) flights are exempt from DAS delays. A center exemption has precedence over a distance exemption, but not over an airport exemption. A maximum of thirty-six centers may be specified.

- **DISTANCE** - Specifies an integer distance, in nautical miles, beyond which departing flights are exempt from DAS delays. Only one distance may be specified. The distance keyword may only be used when the CTL_ELEM is an airport.

A sample EXEMPTIONS block:

```
START_EXEMPTIONS
 DISTANCE 1000
 AIRPORT_ORIG BOS
 CENTER_ORIG ZNY
END_EXEMPTIONS
```

2.5. Non-Exemptions

The Non-Exemptions block defines exceptions to exemptions (flights that would be exempt based on the exemptions block but that the FSM user has specifically specified should not be exempt). The Non-Exemptions block provides for the following keywords;

- **AIRPORT_ORIG** – Specifies any valid ETMS airports from which originating (departing) flights will specifically not be exempt from DAS delays. An airport non-exemption has precedence over a center or distance exemption. A maximum of six airports may be specified.

- **AIRPORT_DEST** – Specifies any valid ETMS airports to which destination (arrival) flights will specifically not be exempt from DAS delays. An airport non-exemption has precedence over a center or distance exemption. This keyword may only be used for AFPs. A maximum of six airports may be specified.

- **CENTER_ORIG** – Specifies any complete centers within which departing flights are exempt from DAS delays. A center non-exemption has precedence over a distance exemption, but not over an airport exemption. A maximum of 36 centers may be specified.

- **AIRPORT_IF_DISTANCE** – Any valid ETMS airport may be used. A "departure airport only if within distance" non-exemption shall have precedence over a center exemption, but not over a distance exemption. A maximum of sixteen airports may be specified. This keyword may only be used when the CTL_ELEM is an airport.

A sample NON_EXEMPTIONS block:

```
START_NON_EXEMPTIONS
 CENTER_ORIG ZNY
 AIRPORT_IF_DISTANCE BOS
END_NON_EXEMPTIONS
```

2.6. DAS

The DAS block provides the average number of delay minutes for each 15 minute time period of the TMI. Instead of this block providing specific predefined keywords, the keyword is the date and time of the time bin to which that DAS delay applies. The time range of the DAS block will cover the time range from the later of the CUMLATIVE_START_TIME and ADL Data Time quarter hour to the CUMLATIVE_END_TIME. As an example, if a GDP with a cumulative start time of 1200 and cumulative end time of 2059 was revised at 1312, the DAS block would start with the 1300 bin and end with the 2045 bin. The DAS block is only included when the PARAMETERS block specifies a DELAY_MODE of DAS and the TYPE is not GS.

- **Date / Time** – Specifies the start of the 15 minute time bin that the DAS delay value should be applied to. In all cases the time bins will be in chronological order and indicate 15 minute increments. Format ddhhmm

- **Delay** – Specifies the number of minutes of DAS delay for that time bin. Format mmm

A sample DAS block:

```
START_DAS
 232200 000
 232215 000
 232230 025
 232245 025
 232300 045
 232315 073
 232330 150
 232345 121
 240000 105
 230015 090
 230030 064
 230045 040
 230100 000
END_DAS
```

2.7. DATA BLOCK APPLICABILITY

The table below defines which types of FADT data blocks are required, dependent on the element and program type.

Data Block Type	Element Type / Program Type					
	GDP (APT)				**AFP (FCA)**	
	Initial / Revision	**Compression**	**Blanket**	**Ground Stop**	**Initial / Revision**	**Compression**
PARAMETERS	Required	Required	Required	Required	Required	Required
DAS	Optional[2]	Optional[2]	Optional[2]	Not Supported	Optional[2]	Optional[2]
UNASSIGNED_SLOTS	Optional[3]	Optional[3]	Optional[3]	Optional[3]	Optional[3]	Optional[3]
INCLUDE_ONLY	Optional[1]	Optional[1]	Optional[1]	Optional[1]	Optional[1]	Optional[1]
EXEMPTIONS	Optional[1]	Optional[1]	Optional[1]	Optional[1]	Optional[1]	Optional[1]
NON_EXEMPTIONS	Optional[1]	Optional[1]	Optional[1]	Optional[1]	Optional[1]	Optional[1]

1. Inclusion rules vary, see appropriate paragraph for details.

2. Only present when the delay mode is DAS.

3. Only present when the delay mode is GAAP.

3. FADT Slot Lists

The FADT Slot Lists provides flight specific delay information. The Slot Lists are provided in three separate sections labeled B6, B8, and B9. The B6 blocks are constructed for use by ETMS and FAA facilities, and thus are organized by departure Center. The B8 and B9 blocks are constructed for transmission to NAS Users, and thus are organized by carrier. B8 and B9 blocks differ slightly in format as that the B8 is intended for transmission via CDMnet and the B9 via ARINC TTY.

Since B9 Slot Lists are transmitted as IATA Type B messages, the formatting of these Slot Lists is altered due to the restrictions that apply to this message type.

- A maximum of 68 characters per line

- Only upper case alphanumeric characters

- Only the "/", "-", and "." punctuations

For each type of slot list formatting and construction information is provided.

- Construction - Defines which flights will be include in the slot list;

    o By Center

    o By User

- Formatting – Defines what information is provided for each flight;

    o Complete

    o Abbreviated

The various types of Slots Lists make use of the construction and format in the following combinations;

List Type	Format Type	Construction Type
B6	Complete	By Center
B8	Complete	By User
B9	Abbreviated	By User

3.1. B6 and B8 Formatting (Complete)

A sample B6 slot list for an Airport Control Element has the following format:

```
     DEP CNTR  ZDC
ACID     ASLOT          DEP   ARR   CTD    CTA    TYPE EX CX SH ERTA    IGTD
ABC1234 LGA.260400A     DCA   LGA   260300 260400 GDP  -  -  -  260200 260245
ABC5678 LGA.260500A     IAD   LGA   260400 260500 GDP  -  -  -  260300 260145
ABC3601 LGA.260323A     BWI   LGA   260206 260323 GDP  Y  -  -  260319 260150
ABC3522 LGA.260311A     RIC   LGA   260215 260311 GDP  -  -  -  260311 260145
ABC3994 LGA.260353A     IAD   LGA   260246 260353 GDP  -  Y  -  260355 260235
```

A sample B8 slot list for an FCA Control Element has the following format:

```
     AIRLINE   AAL
ACID     ASLOT          DEP   ARR   CTD    CTA    TYPE EX CX SH EENTRY IGTD
ABC1234 FCA027.260400A DCA   LGA   260300 260400 AFP  -  -  -  260200 260245
ABC5678 FCA027.260500A IAD   LGA   260400 260500 AFP  -  -  -  260300 260145
ABC3601 FCA027.260323A BWI   LGA   260206 260323 AFP  Y  -  -  260319 260150
ABC3522 FCA027.260311A RIC   LGA   260215 260311 AFP  -  -  -  260311 260145
ABC3994 FCA027.260353A IAD   LGA   260246 260353 AFP  -  Y  -  260355 260235
```

Line 1: Identifies the recipient for this slot list. In the first example this is a center (ZDC), thus this is a B6 Slot List. In the second example this is a NAS User (AAL), thus this is a B8 Slot List.

Line 2: Column labels for data beginning on line 3. Each label will always be at the same position with data on subsequent data lines beginning at the same position as its label.

- ACID at position 1

- ASLOT at position 9

- DEP at position 24

- ARR at position 29

- CTD at position 34

- CTA at position 41

- TYPE at position 48

- EX at position 53

- CX at position 56

- SH at position 59

- ERTA at position 62 - For GDPs only

- EENTRY at position 62 - For AFPs only

- IGTD at position 69

Lines 3 – n: A line for each controlled flight. For each flight, the slot list provides:

- ACID: Aircraft ID (AKA. flight identifier, call sign) [ADL Field ETMSID / CDM Field 02] – Lc[ccccc]

  The flight identifier under which the flight will operate. No leading zeros are shown in the flight number.

- ASLOT: Assigned Arrival Slot [ADL Field ASLOT / CDM Field A2] Lcc[c].ddddddL for GDP Slots / FCAccc.ddddddL for AFP Slots

  When a TMI is issued, each controlled flight is assigned an arrival slot. The format is a concatenation of control element name, slot date and time, and a one-letter suffix. The airport name can be three or four characters. Slots for AFPs can be easily identified since the first three characters will always be FCA. The slot date and time is six digits: two each for day, hour, and minute. Day, hour, or minute should be zero padded if necessary (e.g., 06). The suffix letter is used to ensure that slot name is unique.

- DEP: Origin Airport (AKA. Departure airport) [ADL Field ORIG / CDM Field 26] – Lcc[c]

- ARR: Arrival Airport (AKA. Destination airport) [ADL Field DEST / CDM Field 27] – Lcc[c]

- CTD: Controlled Time of Departure [ADL Field CTD / CGTD in ETMS] – dddddd

  The time the flight should take off (e.g., 260300). The format is a concatenation of day-hour-minute.

- CTA: Controlled Time of Arrival [ADL Field CTA / CGTA in ETMS] – dddddd

  The time the flight should arrive (e.g., 260300). The format is a concatenation of day-hour-minute

- TYPE: Control Type [ADL Field CTL_TYPE] – LL[LL]

The source of the current control times for this flight (e.g. GDP). The possible sources along with an indication of what program type they are applicable to:

- o GDP – control times were assigned as part of an GDP-Initial or GDP-Revision (GDP)

- o AFP – control times were assigned as part of an AFP-Initial or AFP-Revision (AFP)

- o GS – control times were assigned as part of a GDP-Ground Stop (GDP)

- o BLKT – control times were assigned as part of a GDP Blanket (+/-) (GDP)

- o COMP – control times were assigned as part of a AFP-Compression or GDP-Compression (AFP and GDP)

- o BRG – control times were assigned when creating a bridge for an SCS or ECR request (AFP and GDP)

- o DAS – control time assigned from a DAS delay to a pop-up flight (AFP and GDP)

- o GAAP – control times are from an unassigned slot being assigned to a pop-up flight (AFP and GDP)

- o RCTL – a DAS control time assigned to a flight that was at some point controlled by a GDP or AFP, which was then purged or dropped out and was re-controlled as a pop-up in another AFP. As opposed to other pop-ups, RCTL flights retains full substitution rights (AFP)

- o SUB – control times assigned by a conventional user substitution message (AFP and GDP)

- o SCS – control times assigned by a slot credit substitution message submitted by a NAS User (AFP and GDP)

- o ECR – control time assigned by a slot credit substitution message submitted by an Authorized FAA user (AFP and GDP)

- o UPD – control time from an ETMS "EDCT UPDATE" command made by an Authorized FAA user (AFP and GDP)

- EX: Exempt Flag [ADL Field CTL_EXMPT] – c

  Indicates whether the flight was categorized as "exempt" (for example, due to departure time status or departure center) when the GDP-Initial, GDP-Revision, AFP-Initial, or AFP-Revision was computed.

- CX: Cancel Flag [ADL Fields UX, FX, RZ, RS, TO, DV, and RM] - c

  Indicates whether the flight is currently cancelled. A flight's CX flag will be true if any ETMS Cancel Field (UX, FX, RZ, RS, TO, DV, or RM) is true. Format is "Y" if true, "-" if false

- SH: Slot Hold Flag [ADL Field SL_HOLD, CDM Field A6] – c

  If a flight is controlled and cancelled (i.e., has a CTD, CTA, and ASLOT), the Slot Hold flag indicates whether the slot associated with this flight is being held, or would be held, by the NAS User for the next compression. The compression algorithm will not automatically fill slots that are held. If a flight is not controlled the slot hold has no effect, although users may set the slot hold in anticipation of a flight becoming controlled. A slot hold may only be set for flights that are cancelled. Format is "Y" if true, "-" if false.

- ERTA (GDP Slot List Only): Earliest Runway Time of Arrival (ADL Field ERTA, CDM Field T7) – dddddd

  The earliest arrival time that the airline would like to have assigned to this flight in a ground delay program. If the airline has sent this field in a CDM FC or FM message, then the most recent such time is contained in this field. Otherwise, the value is null.

- EENTRY (AFP Slot List Only): Earliest Element Entry Time (ADL Field EENTRY) – dddddd

  The earliest possible entry time into the FEA or FCA, as calculated by ETMS. This field is used to ensure that a flight will not be assigned a slot for an FEA/FCA that it cannot use. Since the CDM Participants do not send earliest entry times for an FEA/FCA, ETMS will compute this value by first determining the earliest ETA (EETA), then applying any delta to the ENTRY time.

- IGTD: Initial Gate Time of Departure (ADL FIELD IGTD, CDM Field A1) – dddddd

  Used to save the initial gate departure time of the flight. Useful for flight data matching.

3.2. B9 Formatting (Abbreviated)

A sample slot list for an Airport Control Element has the following format:

```
     AIRLINE  ABC
ACID     ASLOT          DEP  ARR  CTD     CTA     TYPE EX CX IGTD
ABC1234 LGA.260400A     DCA  LGA  260300 260400 GDP   -  -  260245
ABC5678 LGA.260500A     IAD  LGA  260400 260500 GDP   -  -  260145
ABC3601 LGA.260323A     BWI  LGA  260206 260323 GDP   Y  -  260150
ABC3522 LGA.260311A     RIC  LGA  260215 260311 GDP   -  -  260145
ABC3994 LGA.260353A     IAD  LGA  260246 260353 GDP   -  Y  260235
```

A sample slot list for an FCA Control Element has the following format:

```
     AIRLINE  ABC
ACID     ASLOT          DEP  ARR  CTD     CTA     TYPE EX CX IGTD
ABC1234 FCA027.260400A DCA  LGA  260300 260400 AFP   -  -  260245
ABC5678 FCA027.260500A IAD  LGA  260400 260500 AFP   -  -  260145
ABC3601 FCA027.260323A BWI  LGA  260206 260323 AFP   Y  -  260150
ABC3522 FCA027.260311A RIC  LGA  260215 260311 AFP   -  -  260145
ABC3994 FCA027.260353A IAD  LGA  260246 260353 AFP   -  Y  260235
```

Line 1: Identifies the recipient for this slot list.

Line 2: Column labels for data beginning on line 3. Each label will always be at the same position with data on subsequent data lines beginning at the same position as its label.

- ACID at position 1
- ASLOT at position 9
- DEP at position 24
- ARR at position 29
- CTD at position 34
- CTA at position 41
- TYPE at position 48
- EX at position 53
- CX at position 56
- IGTD at position 59

Lines 3 – n: A line for each controlled flight. For each flight, the slot list provides all fields provided in the B6 and B8 formats except that the SH and ERTA/EENTRY fields are omitted in order to limit the length of each line in order to remain within IATA Type B message specifications.

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3.3. B6 Construction (By Center)

B6 blocks are constructed for use by ETMS and FAA facilities and thus are organized by Departure Center. The flights listed in B6 Blocks are determined based on the following rules;

- The B6 section begins with the label starting at column position 9;

```
        B6 LIST REPORT
```

- Each B6 block begins with the label starting at column position 5, with the center code starting at column position 15;

```
    DEP CNTR   ZAU
```

- Various blocks are created;
    - A center block for each unique departure center which has a flight included in the program. This is based on the departure centers listed in the ADL, which may include actual centers and ETMS pseudo centers.
    - A pseudo center block of "ZZZ".
- Flight are allocated to blocks as follows;
    - Flights with a departure center are listed in the appropriate center block. Thus, each center block will list all included flights departing from airports within that specific departure center (as contained in the ADL).
    - Flights with a null departure center are listed in the "ZZZ" block. Thus, the ZZZ block will list all included flight for which the departure center (as contained in the ADL) is unknown.
- Each block listed will have at least one flight (empty blocks are omitted).
- Each flight will only be listed one time in the B6 section.
- Flights within each block are sorted by CTD.

3.4. B8 and B9 Construction (By User)

B8 and B9 blocks are constructed for transmission to NAS Users, and thus are organized by carrier. The flights listed in the B8 and B9 Blocks are determined based on the following rules;

- The B8 section begins with a label starting at column position 9;

```
        B8 LIST REPORT
```

- Each B8 block begins with a label starting at column position 6, with the airline code starting at column position 15;

```
    AIRLINE  AAL
```

- Each Non-GA / Non-Military, based on the ADL USR field, NAS User with flights included in the program should receive a single slot list.
- A flight whose parent name is not "Other", based on the ADL MAJOR Field, that is not the same as its AC, is also placed in its parent carrier block. The net result of this is;
    - A NAS User who is a MAJOR should receive a slot list that contains their flights (based on AC) and any other flights in the GDP that have that carrier's MAJOR code.
    - A carrier who is not a MAJOR would receive a slot list that contains only its own flights (based on AC).
- Any flight specified as GA, based on the ADL USR field, should be included in a pseudo NAS User block of ".GA"

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- Any flight specified as Military, based on the ADL USR field, should not be included in any B8 blocks.

- These rules may result in a given flight being listed in multiple B8 and B9 sections.

- Flights within each block are sorted by CTD.

A specific example of this would be the following:

- Carrier ABC is a major and has sub-carriers of XYZ and ZYX for whom it has substitution responsibilities.

- Carrier DEF is a major and has a sub-carrier of XYZ for whom it has substitutions responsibilities.

- Carrier XYZ is a sub-carrier of two major carriers (ABC and DEF) at the same airport.

- If a GDP is run at that airport, slot lists will be issued as follows:
  - Airline ABC's (major) slot list will contain all ABC flights and any XYZ or ZYX flights for which it is listed as the major.
  - Airline DEF's (major) slot list will contain all DEF flights and any XYZ flights for which it is listed as the MAJOR.
  - Airline XYZ's slot list will contain all XYZ flights.
  - Airline ZYX's slot list will contain all ZYX flights.

3.5. Removed Flights Special Handling

The FADT includes special provisions for the handling of removed flights. If a TMI includes a previously removed flight which holds a slot (i.e. a previously controlled flight) specific logic is applied in order to include that flight in the FADT so that the slot can be reclaimed. RM Cancelled flights, if previously controlled, are always included in the FADT if their CTA is any time >= to the Cumulative Start Time of the TMI. When listed, the following rules apply;

- The ASLOT field will contain the value "REMOVED" instead of a specific ASLOT

- These flights are only listed in the B6 section of the FADT

- All other values will be as listed as in the model ADL (i.e. no values are changed)

- For GAAP Programs, the slot previously held by the flight will be put back into the unassigned slots block, even if the removed flight is after the end time of the TMI

- If not controlled, the flight is NOT in FADT (i.e. only flights holding a slot are listed)

A removed flight will appear in the B6 section as follows;

```
     DEP  CNTR   ZDC
ACID     ASLOT          DEP  ARR  CTD     CTA     TYPE EX CX SH ERTA    IGTD
ABC1234 REMOVED         DCA  LGA  260300 260400 AFP  -  Y  -  260200 260245
```

4. Sub-Files

This section describes the various files that are created by Autosend from each FADT; these are referred to as Sub-Files. After the FADT file is created by FSM, the file is passed to Autosend for transmission. Autosend processes the FADT file by creating various Sub-Files, which are then transmitted to appropriate destinations. This section of this document describes the various Sub-Files that are created, their transmission destinations, and ultimate usage.

4.1. Overview

After receiving each FADT file from FSM, Autosend breaks down the FADT in two different layers. Primary Sub-Files are generated for display purposes and to facilitate generation of various Secondary Sub-Files. The Secondary Sub-Files are created from the Primary Sub-Files and are utilized for transmission to various destinations based on established rules.

Sub-File names are created from the FADT file name by replacing the "fadt" keyword with "auto" and adding a suffix. Each Sub-File is distinguished by a unique suffix. For example, Sub-Files for the FADT file "fadt.bos___.06153533zz" are named "auto.bos___.06153533zz.as", "auto.bos___.06153533zz.as.aa", etc. The Sub-Files are referred to in this document as "*" followed by the suffix, where the "*" is replaced by the fixed portion of the file name.

The following table provides a mapping of Primary Sub-Files and which Secondary Sub-Files are created from each.

Primary Sub-File	Secondary Sub-Files	Usage
*.as	*.as.aa	Transmitted To Effected Centers As A GENR Message
	*.as.hcs	Transmitted To Host Computer Systems Via IFCN.FE
*.edct	*.eXXX.1 (where XXX = Center)	Transmitted To Affected Centers Via Router Using Address Group Files
	*.e2hub.1	Transmitted To EDCT Via IFCN.FE
*.al	*.al.XXX (where XXX = Airline)	Transmitted To NAS Users Via ARINC
	*.al.XXX.1 (where XXX = Airline)	Transmitted To NAS Users Via CDMnet
*.fa	No Secondary Files	Used For Autosend Client Display

4.2. .as Primary Sub-File

The *.as Primary Sub-File is utilized as the source file to create messages which will distribute DAS Delays (formerly FA delays) to NAS automation systems. This file is also commonly referred to as the FA file. The *.as file is not itself transmitted but is used to later create the *.as.aa and *.as.hcs Secondary Sub-Files.

The *.as file is constructed from the Delay Table contained in the DAS Block. When creating the file Autosend will search for the NADIN address for each center in the file;

   /etms/ats/data/address_files/center_address

The NADIN address will be obtained (e.g: ZTL **à** KZTLZQZX) and will be used later after the *.as file is broken down to other sub-files.

A sample *.as file (e.g: *auto.atl___.281448zz.as*) has the following format:

```
#1# DAS_ADDRESSES
DAS ATL
1500/1514 000 1515/1529 000 1530/1544 000 1545/1559 000
1600/1614 000 1615/1629 000 1630/1644 001 1645/1659 006
1700/1714 011 1715/1729 020 1730/1744 022 1745/1759 018
1800/1814 012 1815/1829 007 1830/1844 006 1845/1859 017
1900/1914 029 1915/1929 039 1930/1944 044 1945/1959 047


+1+ ZTL KZTLZQZX
DCC0131991
 DAS ATL 1500/1514 000 1515/1529 000 1530/1544 000 1545/1559 000

+2+ ZTL KZTLZQZX
DCC0131992
 DAS ATL 1600/1614 000 1615/1629 000 1630/1644 001 1645/1659 006

+3+ ZTL KZTLZQZX
DCC0131993
 DAS ATL 1700/1714 011 1715/1729 020 1730/1744 022 1745/1759 018

+4+ ZTL KZTLZQZX
DCC0131994
 DAS ATL 1800/1814 012 1815/1829 007 1830/1844 006 1845/1859 017

+5+ ZTL KZTLZQZX
DCC0131995
 DAS ATL 1900/1914 029 1915/1929 039 1930/1944 044 1945/1959 047
.
.
.
(continues until all appropriate lines for each center and hour are listed)
```

4.2.1. *.as.aa Secondary Sub-File

The *.as.aa Secondary Sub-File is transmitted as a GENR message to communicate DAS Delays (formerly FA delays) to TFM Specialists. The *.as.aa file is constructed from the *.aa Primary Sub-File and contains information from the Delay Table contained in the DAS Block. When creating the file Autosend will search for the ETMS address for each facility in the file;

   /etms/ats/data/address_files/center_address

A sample *.as.aa file (e.g: *auto.atl___.281448zz.as.aa*) has the following format:

```
DAS ATL
1500/1514 000 1515/1529 000 1530/1544 000 1545/1559 000
1600/1614 000 1615/1629 000 1630/1644 001 1645/1659 006
1700/1714 011 1715/1729 020 1730/1744 022 1745/1759 018
1800/1814 012 1815/1829 007 1830/1844 006 1845/1859 017
1900/1914 029 1915/1929 039 1930/1944 044 1945/1959 047
06/02/15 20:17  ATCSCC.lxdev02 POSITION12 703-123-4567
```

4.2.2. *.as.hcs Secondary Sub-File

The *.as.hcs Secondary Sub-File is transmitted as an FMH message to communicate DAS Delays (formerly FA Delays) to each centers Host Computer System (HCS). The *.as.hcs file is constructed from the *.aa Primary Sub-File and contains information from the Delay Table contained in the DAS Block. Additionally Autosend adds the NADIN Center address and hard coded DCC line with sequence number. When creating the file Autosend will search for the ETMS address for each facility in the file;

> */etms/ats/data/address_files/center_address*

A sample *.as.hcs file (e.g: *auto.atl___.281448zz.as.hcs*) has the following format:

```
KZTLZQZX
DCC0131991
 DAS ATL 1500/1514 000 1515/1529 000 1530/1544 000 1545/1559 000

KZTLZQZX
DCC0131992
 DAS ATL 1600/1614 000 1615/1629 000 1630/1644 001 1645/1659 006

KZTLZQZX
DCC0131993
 DAS ATL 1700/1714 011 1715/1729 020 1730/1744 022 1745/1759 018

KZTLZQZX
DCC0131994
 DAS ATL 1800/1814 012 1815/1829 007 1830/1844 006 1845/1859 017

KZTLZQZX
DCC0131995
 DAS ATL 1900/1914 029 1915/1929 039 1930/1944 044 1945/1959 047
```

4.3. *.edct Primary Sub-File

The *.*edct* Primary Sub-File is utilized as the source file to create messages which will distribute flight specific delays (slot lists) to FAA facilities and NAS automation systems. The *.edct file is not itself transmitted but is used to later create the *.eXXX.1 and *.e2hub.1 Secondary Sub-Files.

The .edct file is constructed from the B6 section of the FADT.

A sample *.edct file (e.g: *auto.atl___.281448zz.edct*) has the following format:

```
FADT ATL 200601171713 200601172115 GDP


   DEP CNTR   CZU
ACID    ASLOT          DEP  ARR  CTD    CTA    TYPE EX CX SH ERTA   IGTD
ABC1234 FCA027.260400A BOS  LGA  260300 260400 GDP  -  -  -  260200 260245
ABC5678 FCA027.260500A IAD  LGA  260400 260500 GDP  -  -  -  260300 260145
ABC3601 FCA027.260323A BWI  LGA  260206 260323 GDP  Y  -  -  260319 260150
ABC3522 FCA027.260311A RIC  LGA  260215 260311 GDP  -  -  -  260311 260145
ABC3994 FCA027.260353A IAD  LGA  260246 260353 GDP  -  Y  -  260355 260235


   DEP CNTR   CZY
ACID    ASLOT          DEP  ARR  CTD    CTA    TYPE EX CX SH ERTA   IGTD
ABC1234 FCA027.260400A DCA  LGA  260300 260400 GDP  -  -  -  260200 260245
ABC5678 FCA027.260500A IAD  LGA  260400 260500 GDP  -  -  -  260300 260145
.
.
.
(Continues with one block for each center, copied from FADT B6)
```

4.3.1. *.eXXX.1 Secondary Sub-File

The *.eXXX.1 Secondary Sub-File is transmitted as a GENR message to communicate Slot Lists to personnel at FAA facilities. One .eXXX.1 file is created per Center, and the files are commonly referred to as EDCT Files. The file is constructed from the *.edct Primary Sub-File and contains information from the B6 section of the FADT.

A sample *.eXXX.1 file (e.g: *auto.atl___.281448zz.eczu.1*) has the following format:

```
EDCT ATL

   DEP CNTR   CZU
ACID    ASLOT          DEP  ARR  CTD    CTA    TYPE EX CX SH ERTA   IGTD
ABC1234 FCA027.260400A BOS  LGA  260300 260400 GDP  -  -  -  260200 260245
ABC5678 FCA027.260500A IAD  LGA  260400 260500 GDP  -  -  -  260300 260145
ABC3601 FCA027.260323A BWI  LGA  260206 260323 GDP  Y  -  -  260319 260150
ABC3522 FCA027.260311A RIC  LGA  260215 260311 GDP  -  -  -  260311 260145
ABC3994 FCA027.260353A IAD  LGA  260246 260353 GDP  -  Y  -  260355 260235
06/02/15 20:17  ATCSCC.lxdev02 POSITION12 703-123-4567
```

4.3.2. *.e2hub.1 Secondary Sub-File

The *.e2hub.1 Secondary Sub-File is transmitted to the ETMS hubsite to allow for program implementation. The file is contains only the parts of the FADT needed by the EDCT process and is the only file transmitted to the EDCT process, and therefore contains all the data needed by the EDCT process. The*.e2hub1 files is transmitted to the ETMS Hubsite EDCT process via IFCN.FE.

The *.e2hub.1 file will contain the following sections of the FADT file, copied verbatim from the FADT file. The B6 report must be the last section in the file.

- The PARAMETERS block (required)
- The UNASSIGNED_SLOTS block (optional)
- The INCLUDE_ONLY block (optional)
- The EXEMPTIONS block (optional)
- The NON_EXEMPTIONS block (optional)
- The DAS block (optional)
- The B6 report

The format of each section will be exactly as described for the FADT file. For readability, each section will be separated by a blank line.

A sample *.e2hub.1 file (e.g: *auto.atl___.281448zz.e2hub.1*) has the following format:

```
FADT ATL 200601171713 200601172115 GDP

START_PARAMETERS
 CTL_ELEM LGA
 TYPE GDP
 DELAY_MODE GAAP
 START_TIME 200504261400
 END_TIME 200504261744
 CUMULATIVE_START_TIME 200504261400
 CUMULATIVE_END_TIME 200504261744
END_PARAMETERS

START_UNASSIGNED_SLOTS
 NONE
END_UNASSIGNED_SLOTS

START_INCLUDE_ONLY
 TYPE PROP
 ARRIVAL_FIX SADDE
 AIRLINE AAL
END_INCLUDE_ONLY

START_EXEMPTIONS
 DISTANCE 1000
 AIRPORT_DEST BOS
 CENTER_DST ZNY
END_EXEMPTIONS

START_NON_EXEMPTIONS
 AIRPORT_ORIG BOS
 CENTER_ORIG ZNY
 AIRPORT_IF_DISTANCE BOS
END_NON_EXEMPTIONS

START_DAS
 232200 0
 232215 0
 232230 0
 232245 25
 232300 45
 232315 73
 232330 150
 232345 121
 240000 105
```

```
END_DAS


    DEP CNTR   CZU
ACID    ASLOT           DEP  ARR   CTD    CTA    TYPE EX CX SH EENTRY IGTD
ABC1234 FCA027.260400A BOS  LGA   260300 260400 GDP  -  -  -  260200 260245
ABC5678 FCA027.260500A IAD  LGA   260400 260500 GDP  -  -  -  260300 260145
ABC3601 FCA027.260323A BWI  LGA   260206 260323 GDP  Y  -  -  260319 260150
ABC3994 FCA027.260353A IAD  LGA   260246 260353 GDP  -  Y  -  260355 260235


    DEP CNTR   CZY
ACID    ASLOT           DEP  ARR   CTD    CTA    TYPE EX CX SH EENTRY IGTD
ABC1234 FCA027.260400A DCA  LGA   260300 260400 GDP  -  -  -  260200 260245
ABC5678 FCA027.260500A IAD  LGA   260400 260500 GDP  -  -  -  260300 260145
.
.
.
(continues with one block for each center, from B6 section)
```

4.4. *.al Primary Sub-File

The *.*al* Primary Sub-File is utilized as the source file to create messages which will distribute flight specific delays (slot lists) to NAS Users. The *.al file is not itself transmitted but is used to later create the *.al.xxx Secondary Sub-Files.

For slot list banner is varied based on program type. For GDP/AFP-Initial, GDP/AFP-Revision and GDP-Blanket the banner used is;

```
ATCSCC EDCT FLOW CONTROL DEPARTURE TIME
```

For GDP-Ground Stop the banner used is;

```
ATCSCC GROUND STOPPED FLIGHTS
```

The *.al file is constructed from the B8 and B9 sections of the FADT.

A sample *.al file (e.g: *auto.atl___.281448zz.al*) has the following format:

```
=1= AAL AIRLINE_ADDRESSES
FOR ATL DESTINATION AIRPORT
ATCSCC EDCT FLOW CONTROL DEPARTURE TIME
ACID     ASLOT           DEP  ARR  CTD    CTA     TYPE EX CX SH ERTA   IGTD
AAL1380 ATL.281557B      DFW  ATL  281433 281557 GDP  Y  -  -  281557 281423
LOF5663 ATL.281648B      STL  ATL  281532 281648 GDP  Y  -  -  281655 281520
AAL1714 ATL.281736B      MIA  ATL  281604 281736 GDP  Y  -  -  281742 281549
AAL1868 ATL.281731B      DFW  ATL  281607 281731 GDP  Y  -  -  281731 281552
CHQ5280 ATL.281850B      STL  ATL  281732 281850 GDP  Y  -  -  281900 281720
AAL1750 ATL.281916A      DFW  ATL  281736 281916 GDP  Y  -  -  281918 281720
AAL439  ATL.281941A      ORD  ATL  281800 281941 GDP  Y  -  -  281938 281745


=1= USA AIRLINE_ADDRESSES
FOR ATL DESTINATION AIRPORT
ATCSCC EDCT FLOW CONTROL DEPARTURE TIME
ACID     ASLOT           DEP  ARR  CTD    CTA     TYPE EX CX SH ERTA   IGTD
LOF3501 ATL.281706B      PIT  ATL  281542 281706 GDP  Y  -  -  281707 281530
USA345  ATL.281743B      PHL  ATL  281559 281743 GDP  Y  -  -  281743 281535
JIA2209 ATL.281854A      CLT  ATL  281812 281854 GDP  -  -  -  281854 281750
.
.
.
(continues with one block for each airline, from B8 section)



-1- AAL AIRLINE_ADDRESSES
FOR ATL DESTINATION AIRPORT
ATCSCC EDCT FLOW CONTROL DEPARTURE TIME
ACID     ASLOT           DEP  ARR  CTD    CTA     TYPE EX CX IGTD
AAL1380 ATL.281557B      DFW  ATL  281433 281557 GDP  Y  -  281423
LOF5663 ATL.281648B      STL  ATL  281532 281648 GDP  Y  -  281520
AAL1714 ATL.281736B      MIA  ATL  281604 281736 GDP  Y  -  281549
AAL1868 ATL.281731B      DFW  ATL  281607 281731 GDP  Y  -  281552
CHQ5280 ATL.281850B      STL  ATL  281732 281850 GDP  Y  -  281720
AAL1750 ATL.281916A      DFW  ATL  281736 281916 GDP  Y  -  281720
AAL439  ATL.281941A      ORD  ATL  281800 281941 GDP  Y  -  281745


-1- USA AIRLINE_ADDRESSES
FOR ATL DESTINATION AIRPORT
ATCSCC EDCT FLOW CONTROL DEPARTURE TIME
ACID     ASLOT           DEP  ARR  CTD    CTA     TYPE EX CX IGTD
LOF3501 ATL.281706B      PIT  ATL  281542 281706 GDP  Y  -  281530
USA345  ATL.281743B      PHL  ATL  281559 281743 GDP  Y  -  281535
```

```
JIA2209 ATL.281854A    CLT  ATL  281812 281854 GDP  -  -  281750
.
.
.
(continues with one block for each airline, from B9 section)
```

4.4.1. *.al.xxx Secondary Sub-File

The *.al.xxx Secondary Sub-Files are transmitted as ARINC messages to communicate Slot Lists to NAS Users. One *.al.xxx file is created per NAS User affected by the program. The file is constructed from the *.al Primary Sub-File and contains information from the B9 section of the FADT. These files are broken down to one per airline from the *.al file. They are to be sent to all the affected airlines via IFCNFE by using the airline mapping file at;

/etms/ats/data/address_files/airline_mapping

For slot list banner is varied based on program type. For GDP/AFP-Initial, GDP/AFP-Revision and GDP-Blanket the banner used is;

```
ATCSCC EDCT FLOW CONTROL DEPARTURE TIME
```

For GDP-Ground Stop the banner used is;

```
ATCSCC GROUND STOPPED FLIGHTS
```

A sample *.al.xxx file (e.g: *auto.atl___.281448zz.al.aal*) has the following format:

```
FOR ATL DESTINATION AIRPORT
ATCSCC EDCT FLOW CONTROL DEPARTURE TIME
ACID     ASLOT          DEP  ARR  CTD    CTA    TYPE EX CX IGTD
AAL1380 ATL.281557B     DFW  ATL  281433 281557 GDP  Y  -  281423
AAL1145 ATL.281636B     ORD  ATL  281519 281636 GDP  Y  -  281504
LOF5663 ATL.281648B     STL  ATL  281532 281648 GDP  Y  -  281520
AAL1714 ATL.281736B     MIA  ATL  281604 281736 GDP  Y  -  281549
AAL1868 ATL.281731B     DFW  ATL  281607 281731 GDP  Y  -  281552
CHQ5280 ATL.281850B     STL  ATL  281732 281850 GDP  Y  -  281720
AAL1750 ATL.281916A     DFW  ATL  281736 281916 GDP  Y  -  281720
AAL439  ATL.281941A     ORD  ATL  281800 281941 GDP  Y  -  281745
AAL1882 ATL.281954A     MIA  ATL  281819 281954 GDP  Y  -  281800
```

4.4.2. *.al.xxx.l Secondary Sub-File

The *.al.xxx Secondary Sub-Files are transmitted as CDMnet messages to communicate Slot Lists to NAS Users. One *.al.xxx.l file is created per NAS User affected by the program. The file is constructed from the *.al Primary Sub-File and contains information from the B8 section of the FADT. These files are broken down to one per airline from the *.al file. They are to be sent to all the affected airlines via IFCNFE by using the airline mapping file at;

/etms/ats/data/address_files/airline_mapping

For slot list banner is varied based on program type. For GDP/AFP-Initial, GDP/AFP-Revision and GDP-Blanket the banner used is;

```
ATCSCC EDCT FLOW CONTROL DEPARTURE TIME
```

For GDP-Ground Stop the banner used is;

```
ATCSCC GROUND STOPPED FLIGHTS
```

A sample *.al.xxx file (e.g: *auto.atl___.281448zz.al.aal.l*) has the following format:

```
FOR ATL DESTINATION AIRPORT
ATCSCC EDCT FLOW CONTROL DEPARTURE TIME
ACID     ASLOT          DEP  ARR  CTD    CTA    TYPE EX CX SH ERTA    IGTD
```

```
AAL1380 ATL.281557B     DFW   ATL   281433 281557 GDP   Y   -   -   281557 281423
AAL1145 ATL.281636B     ORD   ATL   281519 281636 GDP   Y   -   -   281636 281504
LOF5663 ATL.281648B     STL   ATL   281532 281648 GDP   Y   -   -   281655 281520
AAL1714 ATL.281736B     MIA   ATL   281604 281736 GDP   Y   -   -   281742 281549
AAL1868 ATL.281731B     DFW   ATL   281607 281731 GDP   Y   -   -   281731 281552
CHQ5280 ATL.281850B     STL   ATL   281732 281850 GDP   Y   -   -   281900 281720
AAL1750 ATL.281916A     DFW   ATL   281736 281916 GDP   Y   -   -   281918 281720
AAL439  ATL.281941A     ORD   ATL   281800 281941 GDP   Y   -   -   281938 281745
AAL1882 ATL.281954A     MIA   ATL   281819 281954 GDP   Y   -   -   281949 281800
```

4.5. *.fa Primary Sub-File

The *.fa is generated from the FADT and is used for the Autosend user display.

A sample *.fa file (e.g: *auto.atl___.281448zz.fa*) has the following format:

```
1500/1514 000 1515/1529 000 1530/1544 000 1545/1559 000
1600/1614 000 1615/1629 000 1630/1644 001 1645/1659 006
1700/1714 011 1715/1729 020 1730/1744 022 1745/1759 018
1800/1814 012 1815/1829 007 1830/1844 006 1845/1859 017
1900/1914 029 1915/1929 039 1930/1944 044 1945/1959 047


EXEMPT ARTCCS:

    CZE CZM CZQ CZU CZV CZW CZY ZAB ZAU ZBW
    ZDC ZDV ZFW ZHU ZID ZJX ZKC ZLA ZLC ZMA
    ZME ZMP ZNY ZOA ZOB ZSE

EXEMPT AIRPORTS:

    NONE

EXEMPT DISTANCES:

    NONE
```