

AFTN Terminal User Manual

Flight ATM Systems Ltd.



Document Number
GEN-USR

Rev
A0.01

Page
1/41

Filename: GEN_AFTN_Terminal_User_Manual.doc

Paper size: A4

Template: Flight ATM.doc

All information contained in this document remains the sole and exclusive property of Flight ATM Systems Ltd. No part of it may be copied, or disclosed by the recipient to third persons, without the prior written consent of Flight ATM Systems Ltd.; nor shall it be used for any purpose other than in connection with an agreement or proposed agreement with Flight ATM Systems Ltd. Registered in the United Kingdom, registration number 562 5816;

Revision History

Revision	Description of changes made
Draft A.01	Initial release
A	
B	
C	
D	

Change History

Revision	Draft A.01	A	B	C	D
Rev-Date	16 th Oct 09				
Written by	Peter Venton				
Checked by					
Approved by					
Quality Stamp					

Document Authorisation

<p style="text-align: center;">Authorised for use</p> <p style="text-align: center;">_____</p> <p style="text-align: center;">Peter Venton</p> <p style="text-align: center;">Date _____</p>	<p style="text-align: center;">Approved by</p> <p style="text-align: center;">_____</p> <p style="text-align: center;">Customer</p> <p style="text-align: center;">Date _____</p>
---	--

Document Authorisation

Name	Company	No. of Copies	Hardcopy / Softcopy
Anders Brolien	Flight ATM Ltd. System Architecture Design	1	SC
Peter Venton	Flight ATM Systems Ltd. Application Design	1	SC

Referenced Documents

Reference	Identification	Name
[1]	ICAO DOC 4444	Procedures for Air Navigation Services, Air Traffic Management, Fourteenth Edition — 2001
[2]	Volume II, Communication Procedures including those with PANS status, Sixth Edition October 2001;	Annex 10 to the Convention on International Civil Aviation International Civil Aviation Organization, International Standards and Recommended Practices and Procedures for Air Navigation Services
[3]	GEN-CDP	Flight ATM Systems Ltd, AFTN Terminal Configuration Data Preparation
[4]	DPS.ET1.ST09-STD-01-01	EUROCONTROL STANDARD DOCUMENT for ATS Data Exchange Presentation (ADEXP) Edition: 2.1 Edition Date: December 2001
[5]	AFTNTERM-ARCH	Flight ATM Systems Ltd, AFTN Terminal Architecture Overview

Table of Contents

1	Document Overview	6
1.1	Identification	6
1.2	Purpose	6
1.3	Scope	6
1.4	Conventions.....	6
2	System Overview	7
2.1.1	Message Processing	7
2.1.2	System Architecture Overview	9
3	Application Basics	10
3.1	On-Line Help.....	11
3.2	Limitations.....	11
4	Using the Application	12
4.1	Main Window.....	12
4.1.1	Status Bar	14
4.1.2	Main Window Print Options	15
4.1.3	Main Window Tree Folder Manipulation	15
4.1.4	Message Templates	16
4.1.5	Main Window Message Correction	16
4.1.6	Main Window Message Deletion.....	16
4.1.7	Main Window Message Display	17
4.1.8	Main Window Message Composition.....	17
4.1.9	Main Window Message Transmission.....	18
4.1.10	Acknowledging Received Message	18
4.2	Message Editors	18
4.2.1	Text Editor	20
4.2.2	Form Editor	25
4.3	Network Connectivity Window.....	37
5	Appendix A – Command Availability Matrix	39
6	Appendix B – Acronyms.....	40

List of Figures

Figure 1 -	Simplified Architectural Overview	9
Figure 2 -	Client Primary GUI Window	10
Figure 3 -	Main Application Window Appearance after cold Start.....	12
Figure 4 -	Main Application Window Appearance after warm Start	13
Figure 5 -	Main Application Window with Error Selected	14
Figure 6 -	Text Editor Appearance (new Message).....	20
Figure 7 -	Text Editor Appearance (Reply To).....	21
Figure 8 -	Form Editor (FPL)	25
Figure 9 -	Network Connectivity Window	37

List of Tables

Table 1 - Status Bar Icons	15
Table 2 - Command Availability Matrix.....	39

1 Document Overview

1.1 Identification

Program: <Program Name>
Document Name: AFTN Terminal User Manual
Document Number: GEN-USR
Revision: A0.01
Revision Date: Sunday, 18 October 2009
Document Owner: Peter Venton – Flight ATM Systems Ltd.
File Name: GEN_AFTN_Terminal_User_Manual.doc

1.2 Purpose

This is the user manual for the Flight ATM Systems Ltd. AFTN Terminal application.

1.3 Scope

This document provides end users with sufficient information to use the AFTN Terminal Application in an operational environment.

This document can be used as training material if required.

This document cannot be used for system monitoring and control; this includes system configuration, fallback operation and general functionality of a 'system' nature typically reserved for SMC and/or technicians maintaining the operational systems for the ANSP.

1.4 Conventions

Menu and submenu item selection are shown in fixed pitch font as follows:

```
File ⇒ Print Summary List
```

This means select 'Print Summary List' File menu item.

2 System Overview

The Flight ATM Systems Ltd. AFTN Terminal Application is designed to receive from and transmit to the AFTN a number of different message types including:

- ATS Messages in both ICAO and ADEXP formats;
- METARs for meteorological data;
- NOTAMs;
- Other plain text messages as required;

The application is implemented using state of the art technological solutions:

- Messages are stored in a COTS XML database;
- The application is implemented in Java™ which provides scalability for future enhancements as well as a reduction in initial production and subsequent maintenance costs due to the high levels of support for the language.

The application paradigm is based on commercial email applications; this paradigm is immediately recognisable from the main application window. The application provides the following functionality:

- Support for processing all ICAO ATS messages defined in [1], (receive and transmit);
- Support for processing ADEXP messages, message processing conforms to the rules defined by EUROCONTROL in [4] (receive and transmit). The ADEXP message titles supported are defined in configuration data at a programming level. Currently changes to the ADEXP configuration data must be made through Flight ATM Systems. Ltd.
- Support for reception and transmission of METAR and NOTAM messages;
- Support for reception and transmission of other free text message carried by the AFTN;
- Archiving of all received and transmitted messages to meet legal retention obligations;

2.1.1 Message Processing

The application aims to reduce operator workload by automating the ATS message filing process as far as possible.

Received ATS (ICAO and ADEXP) messages are parsed for syntax and semantics and saved to the database; erroneous messages are also saved to the database but flagged to users as containing errors; errors do not have to be corrected.

When composing ATS (ICAO and ADEXP) messages for transmission any errors detected during message composition must first be corrected before transmission onto the AFTN. It is not possible to transmit an erroneous message.

The payload of METAR and NOTAM messages is not parsed on reception or transmission, the message header is.

To assist in efficient message composition, message creation is supported with a number of form editors. Context sensitive help is continuously available to users providing an explanation of a field's syntax.

Free text editors are also available in which messages can be entered; these editors must be used for METAR and NOTAM messages or other non-ATS messages. No form editor support is currently available for ADEXP message and these must also be entered by hand if required.

2.1.1.1 Message Parsing

Received and created ATS messages are fully parsed for conformance to ICAO or ADEXP standards as defined in [1] and [4] respectively. The route field (ICAO field 15) is checked for correct syntax and semantics; there is no check with any AIP data to ensure a point lies on a route etc. As much semantic checking is carried out as possible without the availability of AIP data.

Field 18 and 19 are also checked but many fields are not parsed due to the free text nature of many fields. However, fields such as field 18 EET are checked for correct syntax and semantics. The overall concept is to provide syntax and semantic checking wherever ICAO specifies very specific rules (EET and DOF are examples where such rules are clearly defined).

ADEXP messages are parsed for the following:

- That the correct primary fields are present for a given message title;
- That auxiliary terms are syntactically and semantically correct;
- That a primary field contains the correct auxiliary term;
- All parsing rules are implemented as defined in the ADEXP standard given in [4].

Only messages with a priority indicator 'FF' are parsed for ATS message compliance, (this includes ADEXP and ICAO formats); other priority indicators are used for specific message types which, as already stated are not parsed.

The messages parsed are:

- ICAO messages - ACH, ACP, AFP, APL, ARR, CDN, CHG, CNL, CPL, DEP, DLA, EST, FPL, FNM, MFS, RQP, RQS and SPL;
- ADEXP ETFMS messages DES, SAM, SRM, SLC and SMM;
- ADEXP ATS messages FLS, IACH, IAFP, IAPL, IARR, ICHG, ICNL, IDEP, IDLA, IFPL, IRQP, and IRQS;

2.1.2 System Architecture Overview

This section provides a brief synopsis of the applications architecture; this section is provided for improved understanding how the application fits into the overall ANSP architecture.

This section does not attempt to provide a detailed view of the system architecture; for a more detailed description refer to the document [5].

The network infrastructure is based on standard Ethernet using TCP/IP. Clients are connected to a redundant server that in turn is connected with a TCP/IP connection to the ANSP AFTN switch.

A client instance can be configured to run in any of the tower CWP's; the physical network infrastructure is shared with the CWP.

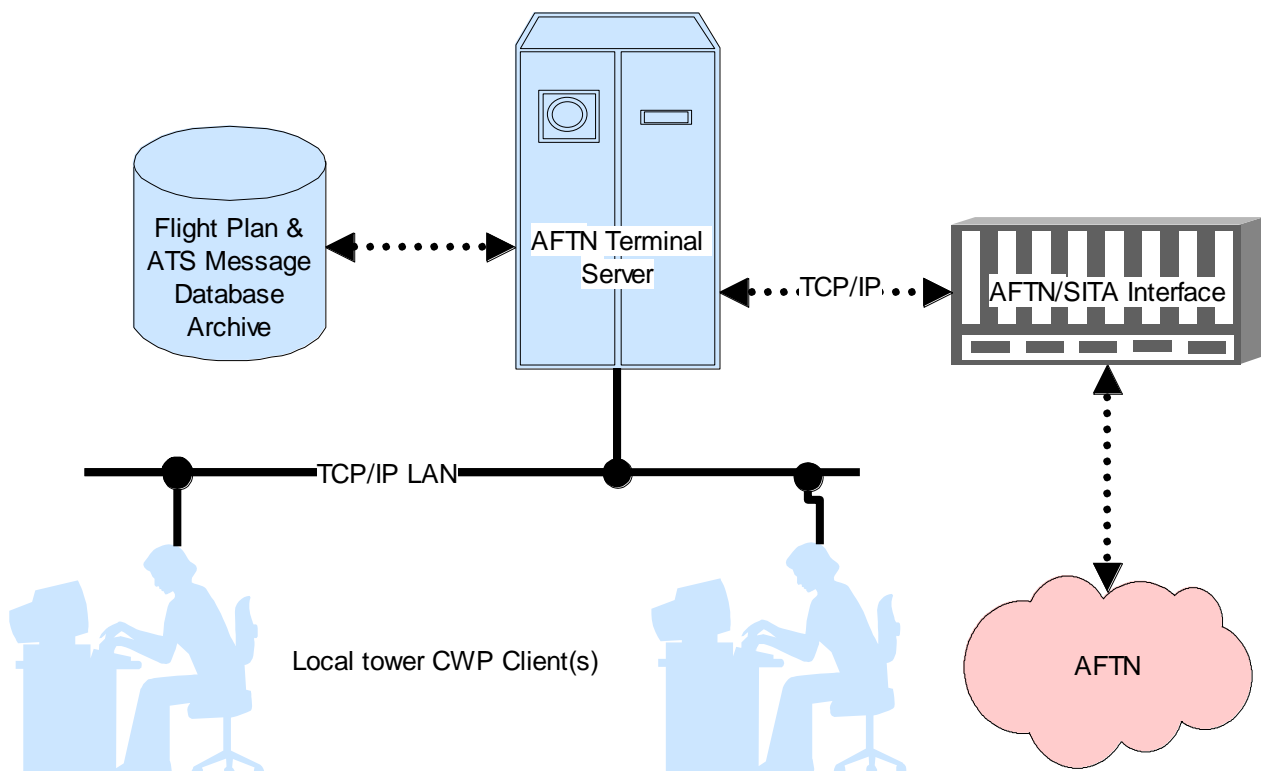


Figure 1 - Simplified Architectural Overview

When a message is received, the server ensures that the message is parsed and stored. Connected clients are notified that a message has been received; clients subsequently display messages to the end user.

Messages created by a client are parsed and stored in the database. The user is able to optionally transmit the message onto the AFTN. Messages derived from a client are secured in the database and cause all clients to be notified of the new message; clients update their respective 'views' of the data once a client has completed inputting a message.

Each message secured to the database is stored as a single XML document;

3 Application Basics

This section provides a brief overview of the AFTN Terminal Application functionality without going into detail; later sections elaborate on the use of the application in greater detail.

The application provides functionality to:

- Enter all ICAO ATS Message types in either ICAO or ADEXP format;
- Ensure entered messages are syntactically correct;
- Ensure entered messages are semantically correct as far as is possible without environmental data checking against AIP data;
- Receive all ICAO ATS Message types in either ICAO or ADEXP format;
- Transmit all ICAO ATS Message types;

Message creation is supported using two mechanisms:

- Plain text editors – these editors are free format text editors allowing complete freedom as to the data entered. These editors are difficult to use as a user must have extensive knowledge of both syntax and semantics for a message being entered.
- Form editors – these editors provide a ‘form’ where many fields are initialised by default and context sensitive help is provided for all fields in a given form providing users with as much support as possible during message composition. The online help is configured in off-line configuration data and can be modified for user preferences.

Default ICAO AFTN originator and addresses are provided in both the form and text editors. This data is obtained from configuration data; for details on how to configure such data refer to [3]

As stated previously, the paradigm used for the application is analogous to many commercial email applications. The following drawing provides a high level description of the applications primary client window at application start up. This window is never closed; closing this window closes the client and disconnects the client application from the server.

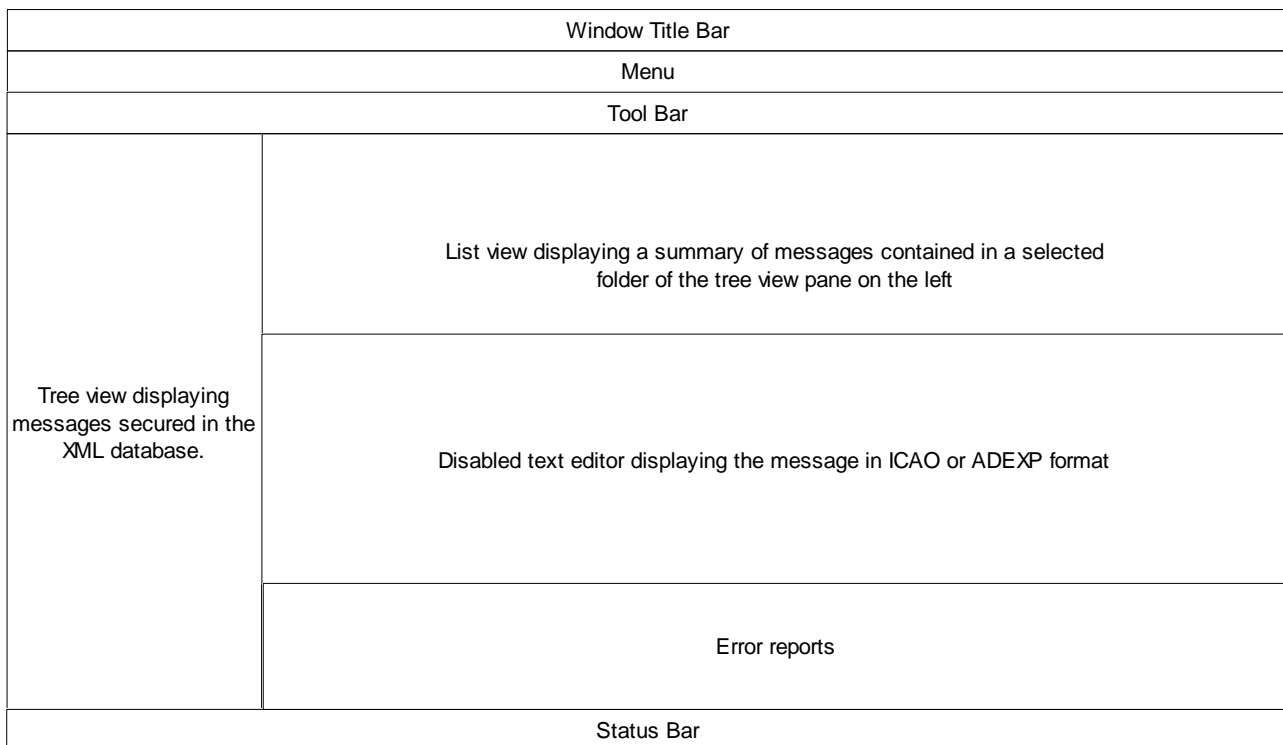


Figure 2 - Client Primary GUI Window

The following describes the areas of the primary application window:

- Title bar – standard windows title bar containing the name of the application with a minimise, maximise and close button.
- Menu – standard window menu with a number of menu items (described later) from which inputs can be made.
- Tool bar – standard window toolbar that contains a number of buttons that replicate many options available in the menus, these buttons provide a shortcut to the menu functions.
- Tree view – displays a hierarchical view of the messages held in the XML database. The user is able to create, modify and delete folders as required. There are a number of folders that cannot be deleted, (e.g. the 'Inbox' which is used to display all received messages).
- Summary list – this displays messages stored in a folder selected by a user from the tree view. The summary list contains a number of columns that provide a synopsis of the data for a given message.
- Text Editor – displays the message as received on the AFTN. This editor is normally disabled but if the message contains an error it is enabled to allow the message to be corrected and saved to the database. Once saved the editor is again disabled.
- Error reports – this area displays the errors (if any) in received messages. Selecting an error causes the erroneous part of the message to be highlighted in the Text Editor.
- Status bar – provides status information about various parts of the application, including network connection status and the number of messages in a selected folder etc.

Once a message is received it can be moved around to a folder of choice (just as files in a file explorer). Stored messages can be copied or a 'Reply to' initiated.

When a 'Reply to' is initiated using a form editor the form is filled out using data from the message being copied. Hence if a 'Reply to' is initiated on an FPL to reply with a DEP then the DEP form editor is opened with all fields initialised from the original message; the user need only provide the ATD, 'check' the message for correct syntax and transmit it.


Users have the ability to 'Save' a message to a Draft folder and then send it immediately or defer the transmission for a later time.

All the buttons, menu items and fields are supported with tool tips that can be used as a reminder as to their function or data input requirements of a GUI component.

3.1 On-Line Help

The application comes with a comprehensive on line help facility that can be invoked from any window with the 'F1' key. Where appropriate, the help is context sensitive displaying help information relevant for the window used to invoke the help.

If a form editor is open with the focus set in an editable field then F1 causes the help to open displaying information on the field with the focus.

There is also a help button () on the toolbar which causes the help to be displayed at the 'Introduction' page of the help documentation.

3.2 Limitations

The application provides numerous dialogues for creating and correcting messages along with a number of windows that provide functions other than message editing. Many of the windows can be opened more than once; this functionality is provided in order to be able to copy data from one message to another or compare data between messages. In order to ensure that system resources cannot be exhausted by opening too many windows a limit is placed on the maximum number of windows that can be opened. The limit can be configured using configuration data.

The maximum number of windows that can be opened excludes the main application window, the 'About' dialogue, the 'Network Connectivity' window and the 'Help' window. Message boxes reporting warnings, information and errors are also excluded. Once the limit is reached the user is prompted to close one or more windows in order to continue opening additional windows.

4 Using the Application

This section describes how to use the AFTN Terminal Application. The functions available and described in this section are summarised in 'Appendix A – Command Availability Matrix'. The matrix provides a synopsis of where a function can be found along with accelerator keys for fast keyboard access to a function.

4.1 Main Window

Once the application is started the window shown in the following figure is displayed; this is the 'main' window as it appears after a cold start. Note that there is a set of default folders displayed in the tree at the left of the window. These default folders cannot be renamed or deleted. There are no specific folders relating to received messages, i.e. an 'Inbox'.

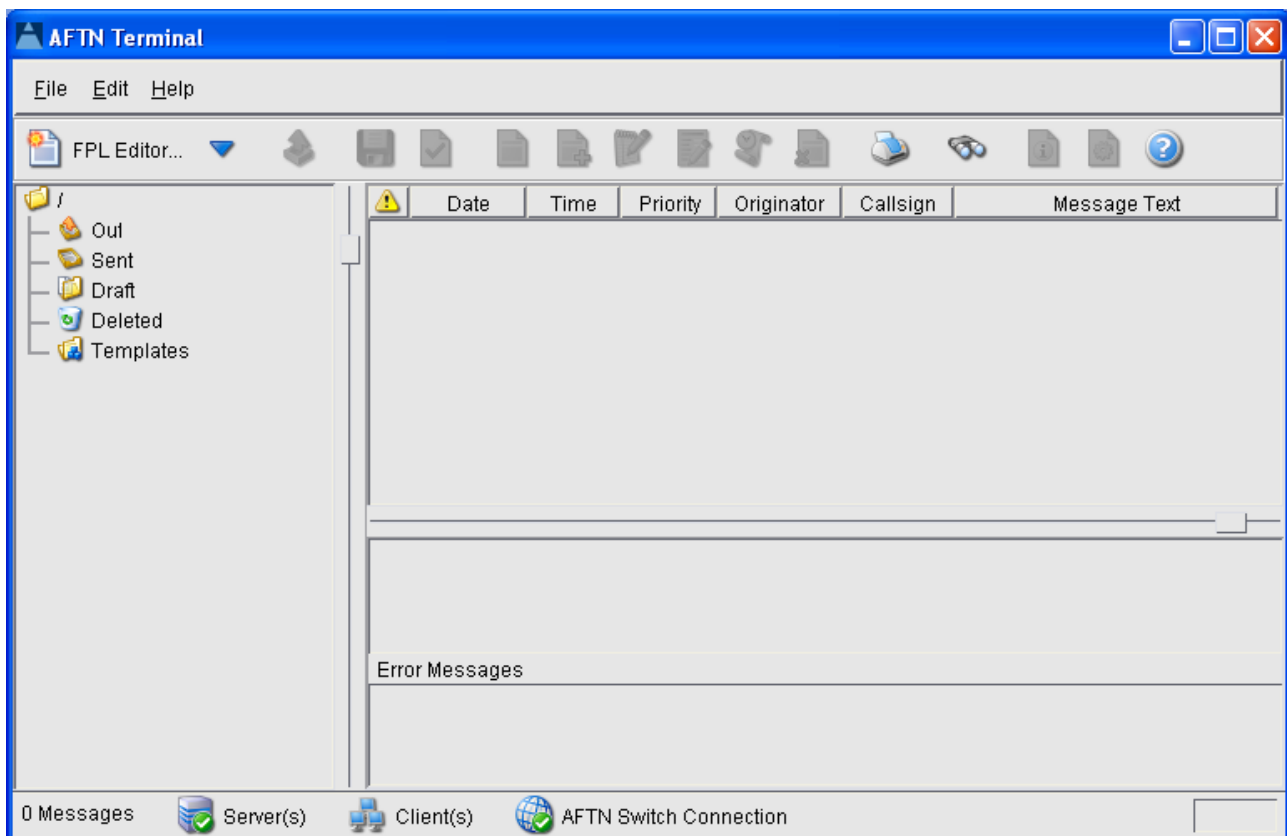


Figure 3 - Main Application Window Appearance after cold Start

Once the application server starts to receive messages a number of 'Inbox' folders are automatically created in which the received messages are stored. These 'automatically' created folders cannot be deleted or renamed by the user.

When a message is received a bell sounds at the client (this is configurable and can be turned off) to notify users that a message has been received. Messages with an SS priority indicator always sound an alarm at the client; this alarm cannot be disabled.

As users are typically presented with the main window containing received messages the following figure is used for the descriptions that follow. The figure shows the appearance of the main window with a number of received messages and the folders created in which the message have been automatically placed.

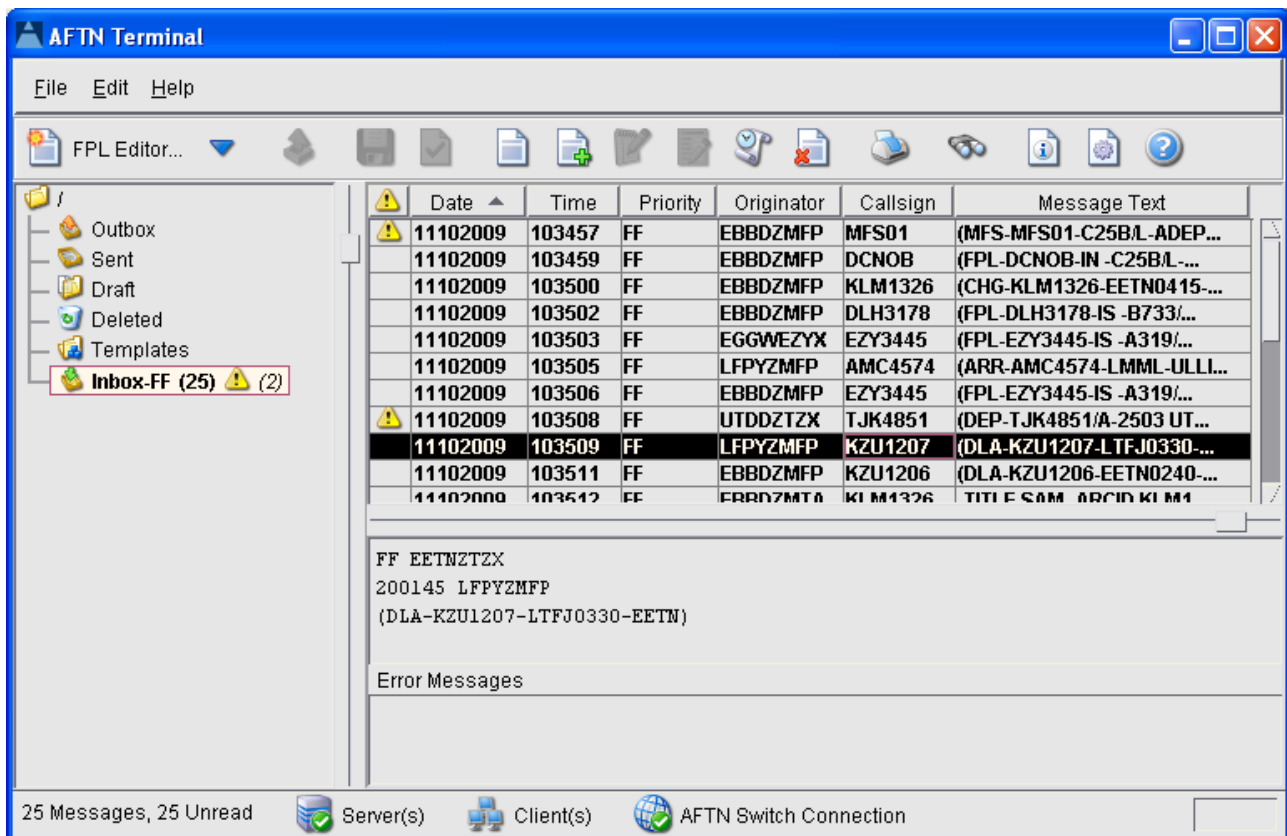


Figure 4 - Main Application Window Appearance after warm Start

Each node in the tree displays the following:

- The total number of messages contained in a tree node (last number in parenthesis);
- The number of messages not read in a tree node (first number in parenthesis);
- A yellow warning icon if the folder contains a message with an error;

Selecting a tree node with the left mouse button causes the message(s) stored in the selected tree node to be displayed in the summary list. Selecting an entry from the summary list causes the message content to be displayed in the text editor below the summary list; the message is displayed as received from the AFTN. Messages containing errors are displayed with a yellow warning icon in the left most column of the summary list.

The text editor below the summary list is disabled for error free messages; erroneous messages can be edited using this editor if required. There is no need to correct messages with errors; all messages are stored in the database irrespective of their error status. However, if a message is to be used as a 'template' to build a message for transmission it must be error free before it can be sent onto the AFTN.

The following figure illustrates the appearance of the main window with an erroneous message selected. Selecting the error highlights the part of the message containing the error.

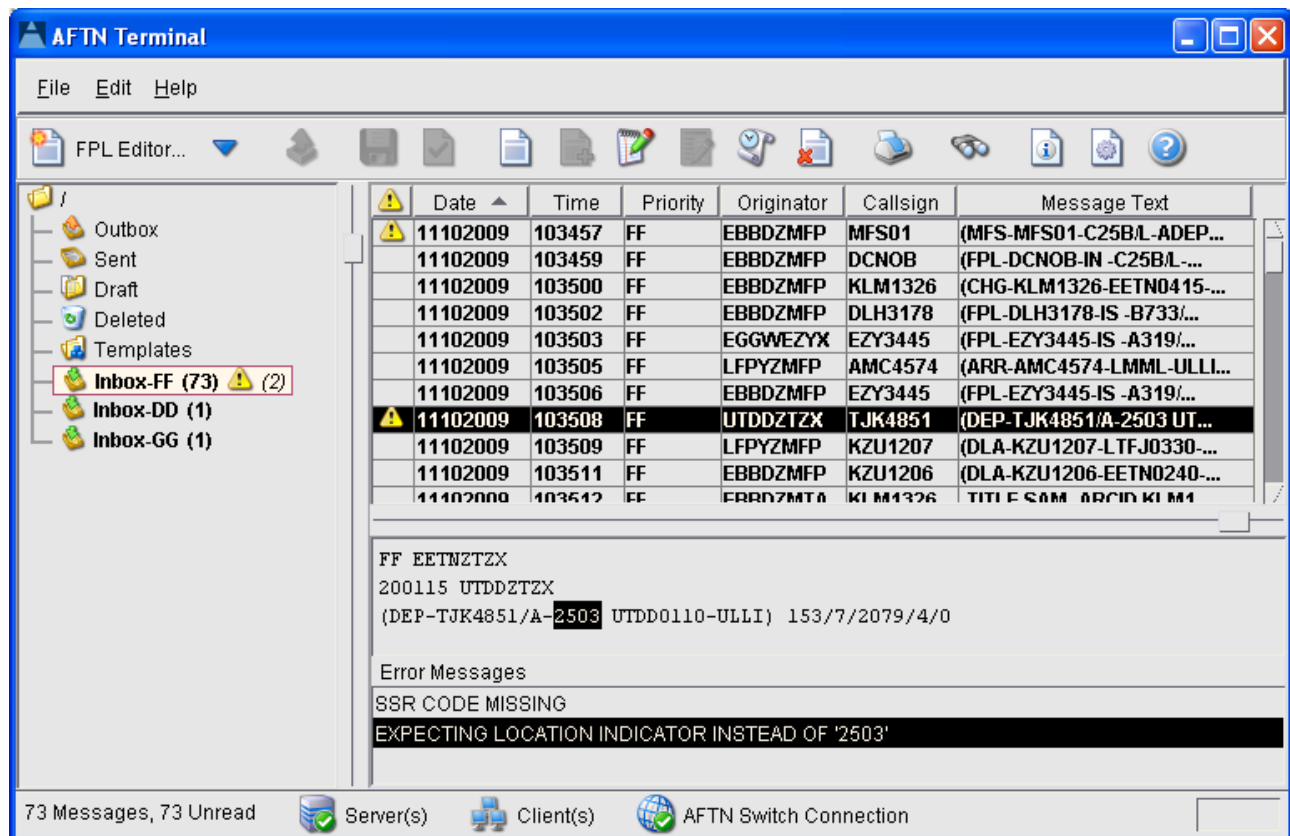


Figure 5 - Main Application Window with Error Selected

4.1.1 Status Bar

The status bar contains five information areas, from left to right these are:

- The number of messages in the selected folder and how many of these have been read;
- Server availability status;
- Client server connection status;
- The connection status of the server with the AFTN switch;
- A small 'stateless' progress bar that is active when the client is waiting for a response from the server.

Double clicking the server, client or AFTN status icons opens a window displaying more detailed information about network connectivity for all servers and clients in the system. A subsequent double click will hide the network connectivity status window. Refer to section 4.3 titled 'Network Connectivity Window' for further details on this window.

The icons displayed in the status bar indicate connection status and server availability; the exact meaning for each icon is explained in the following table.

Icon	Meaning
	No servers are available;
	STBY server is available and 'this' client is connected to it;
	EXEC server is available and 'this' client is connected to it; the availability of the STBY is not indicated. For further information the Network Connectivity window must be opened.







Icon	Meaning
	This client is not connected to an EXEC server; The connection to a standby server is not indicated. For further information the Network Connectivity window must be opened.
	This and client is connected to an EXEC server; The connection to a standby server is not indicated. For further information the Network Connectivity window must be opened.
	This and client and at least one other client are connected to the EXEC server; The connection to a standby server is not indicated. For further information the Network Connectivity window must be opened.
	Neither the EXEC nor STBY server is connected to the AFTN.
	The STBY server is connected to the AFTN;
	The EXEC server is connected to the AFTN; the connection status of the STBY is not indicated. For further information the Network Connectivity window must be opened.

Table 1 - Status Bar Icons


4.1.2 Main Window Print Options

Two print options are available from the Main Window:

- Printing the summary list – the output contains a list of the messages displayed in the summary list.
- Printing the message displayed in the editor – the print output contains the message in the same format as displayed in the text editor.

4.1.2.1 Printing the Summary List

The summary list can be printed using one of the following options:

- Selecting the print button () on the main window toolbar;
- Selecting the `File ⇒ Print Summary List` option from the menu;

4.1.2.2 Printing a Displayed Message

A displayed message can be printed using one of the following options:

- Right click on a summary list entry and select the 'Print' option from the popup menu;
- Right click anywhere in the editor displaying the message and select the 'Print' option from the popup menu;

4.1.3 Main Window Tree Folder Manipulation

The creation, modification, deletion and expansion/collapse of folders in the tree view can be carried out using the following methods:

- From the main window menu with `File ⇒ Folder ⇒ (Create Folder, Delete Folder, Rename Folder or Expand/Collapse Folder)`;
- From the popup menu displayed by right clicking a tree node with `Create Folder, Delete Folder, Rename Folder or Expand/Collapse Folder`;

A number of the folders displayed in the tree view cannot be altered and/or deleted. These are automatically created and reserved for special purposes, these include:


- All the 'Inbox' folders;
- The 'Draft' folder;
- The 'Outbox' folder;
- The 'Sent' folder;


The popup and file menu items associated with the renaming and/or folder deletion will be disabled or not present in the folder menus when invoked on a 'protected' folder.


4.1.4 Message Templates

The application provides a means to store message templates that can be copied and used as a basis for messages of similar content to be created and sent. Under normal circumstances messages older than a given date and time are periodically removed by the housekeeping function. Message templates must never be removed by the housekeeping function; to ensure message templates are not removed they must be placed in a 'special' folder titled 'Templates'; any messages in this folder will not be removed by housekeeping irrespective of their age.

4.1.5 Main Window Message Correction



A received ATS message that contains errors is displayed in the summary list with a yellow explanation mark () in the left most column of the list. These messages can be corrected if required by selecting the error in the error report area, which sets the cursor to the field in the message containing the error. The correction can be typed into the text area displaying the message.

Once something has been typed into the text area the 'Check' button () displayed on the main window toolbar is enabled to validate any changes made. A message must be error free before it can be saved.

Once the message passes input validation, the 'Save' button () is enabled on the toolbar and the message can be saved by selecting the 'Save' button. The original message is updated with any changes made and secured to the database when the 'Save' button is pressed.

The 'Save' and 'Check' options are also available from the popup menu displayed when the right mouse button is clicked and the cursor is in the text editor.



Messages can also be corrected using a text editor that can be invoked from:

- The popup menu displayed when right clicking a summary list entry and selecting the 'Edit Message' option ();
- Selecting the Text Editor button () from the main window toolbar.

The text editor is discussed later in this document. The text editor functions in an identical manner to the text editor displayed in the main application window.

4.1.6 Main Window Message Deletion

Messages can be deleted using one of the following mechanisms:



- Selecting a message in the summary list and either:
 - Pressing the 'Delete' button () on the main window toolbar;
 - Pressing the 'Delete' menu item () displayed in the popup menu invoked with a right click on a selected message displayed in the summary list;

- Pressing the 'Delete' menu item () displayed in the popup menu invoked with a right click in the message editor area;
- Selecting the main window edit menu item Edit ⇒ Delete ATS Message;

The various 'Delete' menu items are only enabled when a message is selected in the summary list. When a message is deleted from a folder other than the 'Deleted' folder, the message is removed from the list in which it was selected and moved to the 'Deleted' folder. If a message is deleted from the 'Deleted' folder it is permanently deleted and removed from the database; messages deleted from the 'Deleted' folder **cannot be recovered**.

4.1.7 Main Window Message Display

The original message as received can be displayed in a separate window; as many instances of such windows can be opened as required. To display a message use one of the following methods:

- Select the 'Display Message' button () on the main window toolbar;
- Select the 'Display Message' menu item () displayed in the popup menu invoked with a right click on a selected message displayed in the summary list;


The window displays a read only copy of the message that can be printed if required.

4.1.8 Main Window Message Composition

Messages can be created for transmission onto the AFTN. Two different types of editor are provided to create new messages – a plain text editor and a form editor. Both editor types are described in section 4.2 titled 'Message Editors'.

When creating a new message, it can be created from a blank form/editor or by copying an existing message to initialise as many fields of the new message as possible.

This section describes how to invoke the message editors from the main window, refer to section 4.2 titled 'Message Editors' for details on the editors.

Once a message is created the editors provide a means to both save and send a message. If a message has been saved it is placed in the 'Draft' folder. Any message in the Draft folder can be sent using the send button () displayed on the main window toolbar.

4.1.8.1 Creating a Message from a Blank Editor



To invoke the form editors for message creation one of the following methods can be used:

- Select one of the form editors displayed in the drop down list displayed at the left of the main window toolbar.
- Select one of the form editors displayed in the menu invoked from the main window menu with File ⇒ Create Message ⇒ <Message Title> Editor...

Fill out the form as described in section x.

4.1.8.2 Creating a Message Copy


To create a copy of a message to use as a template for a new message **with an identical message title** use one of the following methods:

- Select the 'Copy Message' button () on the main window toolbar;
- Select the 'Copy Message' menu item () displayed in the popup menu invoked with a right click on a selected message displayed in the summary list;

A message copy always copies the message field for field; (if an 'ARR' message is copied the 'ARR' editor is opened, if 'FPL' then an 'FPL' editor is opened etc.). A message box is displayed when an attempt is made to open a form editor on a message that has no form editor support. The message box advises that the plain text editor should be used instead.

4.1.8.3 Replying to a Message


To reply to a message use the following method:

- Select the 'Reply To Message ⇒ <Message Title> Editor...' menu item () displayed in the popup menu invoked with a right click on a selected message displayed in the summary list;
- Select a message title from the sub-menu as required to invoke the form editor appropriate for the desired title;

The 'Reply to message' provides a fast method to respond to a given message with a required message title. For example, reception of an FPL for an arrival flight may eventually lead to an ARR message being required for transmission back to the CFMU. To do this for the FPL message, the FPL can be 'replied to' with an ARR message. Upon displaying the ARR form editor the editor has all the fields filled out using data from the FPL message used to invoke the ARR form editor. The user only has to fill in the ATA and send the message onto the AFTN. The originator and addressees are automatically filled in using a combination of configuration data and address data contained in the message being copied.

A reply can also be made using a text editor by selecting the text editor option instead of a message title editor option.

4.1.9 Main Window Message Transmission



Any messages that are in the 'Draft' folder can be transmitted onto the AFTN by pressing the 'Send' button () on the main window toolbar. Once the message has been sent it is moved to the 'Outbox' folder. If a connection is available to the AFTN the message is sent and then moved to the 'Sent' folder.

Messages are put into the 'Draft' folder whenever an editor has been used to 'Save' a message and not send it.

4.1.10 Acknowledging Received Message

When messages are received they are displayed as 'not read'. Once a message has been read and the user is satisfied that the message has been dealt with it can be set as 'Read'. This process is not automated to ensure the end users acknowledge each and every message.

The status can be toggled between read and unread as required using the following method:

- For an unread message - Select the 'Read' menu item () displayed in the popup menu invoked with a right click on a selected message displayed in the summary list;
- For a read message - Select the 'Unread' menu item () displayed in the popup menu invoked with a right click on a selected message displayed in the summary list;

4.2 Message Editors

The AFTN Terminal application provides two types of editors:

- Plain text – these can be used to enter any type of message onto the AFTN;
- Form editors – these are designed for specific message titles to aid fast message composition;

Form editors invoked using 'Reply to' or 'Copy Message' are initialised with as much data from the message used to invoke the editor as possible, thus minimising the amount of additional data to input before they are ready for transmission.

Form editors are available for the following message titles:

- ACP, ARR, CDN, CHG, CNL, CPL, DEP, DLA, EST, FPL, RQP, RQS and SPL;

Form editors are not available for ADEXP messages and other types of non-ATS message such as NOTAM and METAR messages.

This section describes how to use the various editors supported by the application.

4.2.1 Text Editor

The text editors can be invoked for new messages or invoked using 'Reply to'. When invoked as a new message editor the message header is initialised with an originator and addressee list derived from configuration data.

The user must provide the message body; the message body is described in more detail in section 4.2.1.1 titled 'ICAO ATS Message Description'. An example of how this editor appears is shown below.

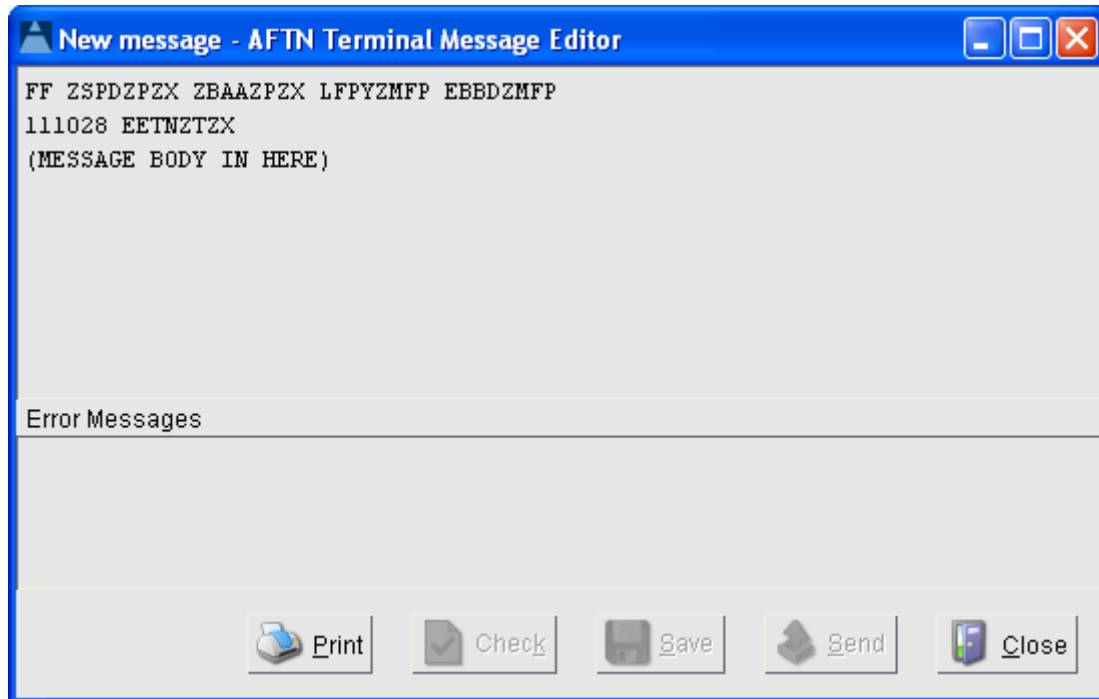


Figure 6 - Text Editor Appearance (new Message)

When the text editor is invoked with a 'Reply to' both the message header and body are initialised with data obtained from the message used to invoke the message. This results in a complete copy of the message being placed into the editor, which can then be modified before validating and ultimate transmission onto the AFTN. When a text editor is invoked from an ATS message the call sign of the message is displayed in the window title bar.

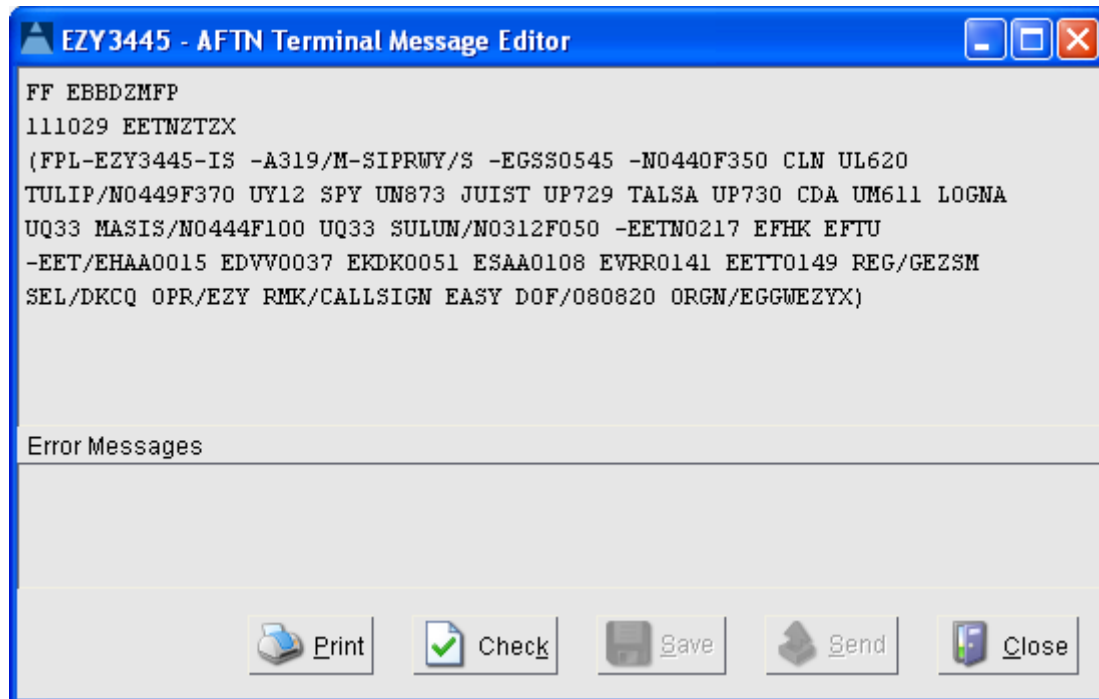


Figure 7 - Text Editor Appearance (Reply To)

A message cannot be saved until all errors have been corrected. Saved messages are placed in the 'Draft' folder. A message can be sent once it has been saved.

A message displayed in a text editor can be printed if required using the print button.

4.2.1.1 ICAO ATS Message Description

The text editors provide a means for any AFTN message to be entered. However, the AFTN terminal provides advanced parsing for the ATS message set and as such these messages require special mention in order to assist users in preparing these message types.

This section describes the overall message structure for the following ICAO message titles:

- ACH, ACP, AFP, APL, ARR, CDN, CHG, CNL, CPL, DEP, DLA, EST, FPL, FNM, MFS, RQP, RQS and SPL.

In the following definitions fields shown in brackets are optional. The AFTN Terminal parser tolerates white space between fields and field separators (the 'hyphens') but down-route systems may not. Hence it is important to conform to the ICAO rules and concatenate the fields with the field separators except when a separator starts a new line.

The AFTN terminal limits the number of characters to 69 per line upon transmission. The user need not be concerned with writing the message in a single line. For easy reading it is often better to split a message over several lines, preferably at the end of a field with the field separators always starting a new line. This is the 'standard format' that messages are sent over the AFTN.

Fields shown between curly braces occur a minimum and/or a maximum number of times as indicated by a preceding or succeeding integer. If no integer precedes or follows a curly bracket then this implies any number of times.

4.2.1.1.1 ACH

(ACH-FIELD_7-FIELD_13-FIELD_16A(FIELD_16B)
-FIELD_18_DOF-FIELD_22)

4.2.1.1.2 ACP

(ACP-FIELD_7-FIELD_13-FIELD_16)

4.2.1.1.3 AFP

(AFP-FIELD_7(-FIELD_8)
-FIELD_9-FIELD_10
-FIELD_13A(FIELD_13B)
-FIELD_14
(-FIELD_15)
-FIELD_16A(FIELD_16B) 0{FIELD_16C}2
-FIELD_18
-FIELD_19)

4.2.1.1.4 APL

(APL-FIELD_7-FIELD_8
-FIELD_9-FIELD_10
-FIELD_13
-FIELD_14
-FIELD_15
-FIELD_16A(FIELD_16B) 1{FIELD_16C}2
-FIELD_18
-FIELD_19)

4.2.1.1.5 ARR

(ARR-FIELD_7-FIELD_13-FIELD_16A-FIELD_17(-FIELD_18_DOF))

4.2.1.1.6 CDN

(CDN-FIELD_7-FIELD_13-FIELD_16)

4.2.1.1.7 CHG

(CHG-FIELD_7-FIELD_13A(FIELD_13B)-FIELD_16A(FIELD_16B)(-FIELD_18_DOF)
1{-FIELD_22}))

4.2.1.1.8 CNL

(CNL-FIELD_7-FIELD_13A(FIELD_13B)-FIELD_16A(-FIELD_18_DOF))

4.2.1.1.9 CPL

(CPL-FIELD_7-FIELD_8
-FIELD_9-FIELD_10
-FIELD_13-FIELD_14)

-FIELD_15
-FIELD_16 1{FIELD_16C}2
-FIELD_18)

4.2.1.1.10 DEP

(DEP-FIELD_7-FIELD_13-FIELD_16A(-FIELD_18_DOF))

4.2.1.1.11 DLA

(DLA-FIELD_7-FIELD_13-FIELD_16A(-FIELD_18_DOF))

4.2.1.1.12 EST

(EST-FIELD_7-FIELD_13-FIELD_14-FIELD_16)

4.2.1.1.13 FNM

(FNM-FIELD_7-FIELD_9-FIELD_13A
-FIELD_15
-FIELD_16A
-FIELD_18
-FIELD_19)

4.2.1.1.14 FPL

(FPL-FIELD_7-FIELD_8
-FIELD_9-FIELD_10
-FIELD_13
-FIELD_15
-FIELD_16 1{FIELD_16C}2
-FIELD_18
-FIELD_19)

4.2.1.1.15 MFS

(MFS-FIELD_7-FIELD_9
-FIELD_13A
-FIELD_14
-FIELD_16A-SIGNIFICANT_POINT_ID)

4.2.1.1.16 RQP

(RQP-FIELD_7-FIELD_13-FIELD_16A(-FIELD_18_DOF))

4.2.1.1.17 RQS

(RQS-1{Any text so long as it's a minimum of 1 character})

4.2.1.1.18 SPL

(FPL-FIELD_7-FIELD_13
-FIELD_16 1{FIELD_16C}2

-FIELD_18

-FIELD_19)

4.2.2 Form Editor

The form editors can be invoked for new messages or invoked using 'Reply to'. When invoked for a new message the editor is initialised with an originator and addressee list derived from configuration data.

When invoke with a 'Reply To' the editor is initialised with as much data as possible from the data of the message used to invoke the 'Reply To'. The form editors always consist of three panels:

- Window upper half – the fields available for a given message title; if there are a lot of fields this panel is scrollable to avoid the window having to be too large to fit all the fields in one display area;
- Lower left – an error panel that displays errors when the message is checked;
- Lower right – interactive help that provides information as to a fields syntax and semantics when a field has the focus;

A field with focus is indicated to users; the TAB key can be used to skip from one field to the next. As a user skips through the fields the interactive help displays the information appropriate for the field.

Selecting an error causes the field with the error to gain the focus and the cursor is positioned at the text containing the error.

The following illustration is for a fully initialised flight plan (FPL) form editor.

For a description of syntax and semantic rules for the individual fields refer to section 4.2.2.1 titled 'ICAO Field Descriptions'.

The screenshot shows the 'FPL Message Editor' window with the following data:

Message Heading and Addressing Data					
Priority Indicator	FF				
Filing Time	111030	Originator	EETNZTX		
Addressees	EBBDZMFP				
Additional Addressees					

Message Fields					
Callsign	EZY3445	SSR		Rules	I
Type of Flight	S				
Number of A/C	1	A/C Type	A319	WTC	M
Equipment	SIPRWY				
ADEP	EGSS	EOBT	0545		
ADES	EETN	EET	0217	ALTN 1	EFHK
				ALTN 2	EFTU
Route	N0440F350 CLN UL620 TULIP/N0449F370 UY12 SPY UN873 JUIST UP729 TALSA UP730 CDA UM611 LOGNA U033 MASIS/N0444F100 U033 SULUN/N0312F050				

Error Messages	Priority Indicator
	Two character priority indicator. FF - Standard ATS (Air Traffic Service) message SS - Distress message

Buttons: Print, Save, Send, Validate, Close

Figure 8 - Form Editor (FPL)

Messages can be printed from a form editor using the print button.

To input a message using a form editor, data must be entered into the various fields. If a 'Reply To' was selected then most of the fields are filled out upon displaying a form editor. Once data is entered into any field the 'Validate' button is enabled.

Pressing the 'Validate' button causes entered data to be parsed. If errors are detected they are displayed in the 'Error Messages' area. A message cannot be saved or sent while errors are present. In order to expedite message correction, selecting an error causes the cursor to be placed at the text in error and the field with the erroneous text to gain the focus.

When no errors are present the 'Save' button is enabled; selecting this button causes the message to be saved to the 'Draft' folder.

Once saved the 'Send' button is enabled; selecting this button sends the message to the 'Outbox' folder. If a connection with the AFTN switch is available the message is sent and moved to the 'Sent' folder.

Selecting the 'Close' button closes the form editor.

4.2.2.1 ICAO Field Descriptions

This section contains a description for each ICAO field that may occur in the form editors.

4.2.2.1.1 Message Originator

The originator address which can be specified as either an ICAO or SITA address:

- 7 Characters represents a SITA address;
- 8 characters represents a ICAO address;

4.2.2.1.2 Priority Indicator

Two character priority indicator:

- SS - Distress message
- DD - Urgent message
- GG - One of the following:
 - Meteorological message
 - Flight Regularity Message
 - Aeronautical Information Services message
- KK - Aeronautical Administrative message

4.2.2.1.3 Filing time

Time and date at which the message is filed in the format DDHHMM.

4.2.2.1.4 Destination Address

Address to which the message is to be sent which can be specified as either an ICAO or SITA address:

- 7 Characters represents a SITA address;
- 8 characters represents a ICAO address;

4.2.2.1.5 Destination Address

Additional addresses to which the message is to be sent, can be specified as either an ICAO or SITA address:

- 7 Characters represents a SITA address;
- 8 characters represents a ICAO address;

4.2.2.1.6 ICAO Field 5a - Phase of Emergency

An emergency has been declared in respect of the aircraft concerned. Values for this field are one of the following:

- INCERFA if an uncertainty phase;
- ALERFA if an alert phase;
- DETRESFA if a distress phase;

4.2.2.1.7 ICAO Field 5b - Originator of Message

8 LETTERS being the 4-letter ICAO location indicator plus the 3-letter designator of the ATS unit originating the message followed by the letter X or, if applicable, the one-letter designator identifying the division of the ATS unit originating the message.

4.2.2.1.8 ICAO Field 5c - Nature of Emergency

Short plain language text to explain the nature of the emergency; this includes natural spaces between the words.

4.2.2.1.9 ICAO Field 7a - Aircraft Identification

Not more than seven characters, being the aircraft identification shown in the filed flight plan and composed as specified in DOC 4444 Appendix 2, Section 2.

4.2.2.1.10 ICAO Field 7b - SSR Mode

The character 'A' giving the SSR Mode related to field 7c. This field is optional in messages relating to flights operating within areas where SSR is not used, or when the SSR Code information is not known or would not be meaningful to the accepting unit.

4.2.2.1.11 ICAO Field 7c - SSR Code

4 Numeric characters giving the SSR Code assigned to the aircraft by ATS and transmitted in the Mode given field 7b, which for the form editor always assumes Mode 'A'. This field is optional in messages relating to flights operating within areas where SSR is not used, or when the SSR Code information is not known or would not be meaningful to the accepting unit.

4.2.2.1.12 ICAO Field 8a - Flight Rules

One character as follows:

- I if IFR
- V if VFR
- Y if the flight starts IFR
- Z if the flight starts VFR

Note: If the letter Y or Z is used, the point or points at which a change of Flight rules is planned is to be shown as indicated in Field 15.

4.2.2.1.13 ICAO Field 8b - Type of flight

One character as follows:

- S if scheduled air transport
- N if non-scheduled air transport
- G if general aviation
- M if military
- X other flights

4.2.2.1.14 ICAO Field 9a - Number of Aircraft

The number of aircraft, if more than one, given as one or two digits representing the number of aircraft in the flight.

Note: This element is included only in the case of formation flights.

4.2.2.1.15 ICAO Field 9b - Type of Aircraft

Two to four characters, being the appropriate designator chosen from ICAO Doc 8643, Aircraft Type Designators, or ZZZZ if no designator has been assigned or if there is more than one type of aircraft in the flight.

Note: If the letters ZZZZ are used, the type(s) of aircraft is (are) to be shown in the Other Information Field (see Field Type 18).

4.2.2.1.16 ICAO Field 9c - Wake Turbulence Category

One character indicating the maximum certificated take-off mass of the aircraft:

- H - Heavy
- M - Medium
- L - Light
- J - Jumbo (A380)

4.2.2.1.17 ICAO Field 10a – Equipment

Radio Communication, Navigation and Approach Aid Equipment defined as one character 1 as follows:

- N - No COM/NAV/approach aid equipment for the route to be flown is carried, or the equipment is un-serviceable,
OR
- S - Standard COM/NAV/approach aid equipment for the route to be flown is carried and serviceable (See Note 1),
AND/OR ONE OR MORE OF THE FOLLOWING LETTERS to indicate the COM/NAV/approach aid equipment serviceable:
 - A - (Not allocated)
 - B - (Not allocated)
 - C - LORAN C
 - D - DME
 - E - (Not allocated)
 - F - ADF
 - G - (GNSS)
 - H - HF RTF
 - I - Inertial Navigation
 - J - (Data link) (see Note 3)
 - K - (MLS)
 - L - ILS
 - M - Omega
 - O - VOR
 - P - (Not allocated)
 - Q - (Not allocated)
 - R - RNP type certification (see Note 5)

- T - TACAN
- U - UHF RTF
- V - VHF RTF
- W - RVSM Capable
- X - When prescribed by ATS
- Y - 8.33KhZ channel separation supported
- Z - Other equipment carried (see Note 2)

Note 1. Standard equipment is considered to be VHF RTF, ADF, VOR and ILS, unless another combination is prescribed by the appropriate ATS authority.

Note 2. If the letter Z is used, the equipment carried is to be specified in Item 18, preceded by COM/ and/or NAV/ as appropriate.

Note 3. If the letter J is used, specify in Item 18 the equipment carried, preceded by DAT/ followed by one or more letters as appropriate.

Note 4. Information on navigation capability is provided to ATC for clearance and routing purposes.

Note 5. Inclusion of letter R indicates that an aircraft meets the RNP type prescribed for the route segment(s), route(s) and/or area concerned.

4.2.2.1.18 ICAO Field 10b - Surveillance Equipment

One or two characters to describe the serviceable surveillance equipment carried:

- SSR equipment:
 - N - Nil
 - A - Transponder — Mode A (4 digits — 4 096 codes)
 - C - Transponder — Mode A (4 digits — 4 096 codes) and Mode C
 - X - Transponder — Mode S without both aircraft identification and pressure-altitude transmission
 - P - Transponder — Mode S, including pressure-altitude transmission, but no aircraft identification transmission
 - I - Transponder — Mode S, including aircraft identification transmission, but no pressure-altitude transmission
 - S - Transponder — Mode S, including both pressure-altitude and aircraft identification transmission
- ADS equipment:
 - D - ADS capability

4.2.2.1.19 ICAO Field 13a - Departure Aerodrome

Four characters defining one of the following:

- The ICAO four-letter location indicator allocated to the departure aerodrome,
- ZZZZ if no ICAO location indicator has been allocated (see Note 1) or if the departure aerodrome is not known,
- AFIL if the flight plan has been filed in the air (see Note 2).

Note 1. If ZZZZ is used, the name of the departure aerodrome is to be shown in the Other Information Field (see Field Type 18) if this Field Type is contained in the message.

Note 2. If AFIL is used, the ATS unit from which supplementary flight data can be obtained is to be shown in the Other Information Field (Field Type 18)

4.2.2.1.20 ICAO Field 13b - Time

Four digits giving one of the following:

- The estimated off-block time at the aerodrome in Field 13a in FPL and DLA messages transmitted before departure and in RQP message, if known, or the actual time of departure from the aerodrome in Field 13a in ALR, DEP and SPL messages,
- The actual or estimated time of departure from the first point shown in the Route Field (see Field Type 15) in FPL messages derived from flight plans filed in the air, as shown by the letters AFIL in Field 13a.

Note - This field is optional in message types CHG, CNL, ARR, CPL, EST, CDN, ACP and RQS. It shall be omitted in message type RQP if the estimated off-block time is not known.

4.2.2.2 ICAO Field 14a - Boundary Point

The boundary point expressed either by a designator consisting of 2 to 5 characters, in Geographical Coordinates, in Abbreviated Geographical Coordinates, or by bearing and distance from a designated point (e.g. a VOR).

Note 1. This point may be an agreed point located close to, rather than on, the FIR boundary.\n\

Note 2. See ICAO DOC 4444 Section 1.6 for data conventions.

4.2.2.2.1 ICAO Field 14b - Time at Boundary Point

Four digits giving the estimated time at the Boundary Point;

4.2.2.2.2 ICAO Field 14c - Cleared Level

This field gives the cleared level at which the aircraft will cross the Boundary Point, in level cruising flight, or the cleared level to which it is proceeding, if climbing or descending at the Boundary Point.

- F followed by 3 NUMERICS, or
- S followed by 4 NUMERICS, or
- A followed by 3 NUMERICS, or
- M followed by 4 NUMERICS

Note - Refer also to data conventions in DOC 4444 section 1.6 of Appendix 3.

4.2.2.2.3 ICAO Field 14d - Supplementary Crossing Data

A level, expressed as in field 14c, at or above which or at or below which (see field 14e) the aircraft will cross the Boundary Point.

Note - This field is optional if the aircraft crosses the Boundary Point in level cruising flight.

4.2.2.2.4 ICAO Field 14e - Crossing Condition

One character as follows:

- 'A' if the aircraft will cross the Boundary Point at or above the level in field 14d;
- 'B' if the aircraft will cross the Boundary Point at or below the level in field 14d;

4.2.2.2.5 ICAO Field 15 - Route Description

4.2.2.2.5.1 ICAO Field 15a - Cruising Speed or Mach Number

The True Airspeed for the first or the whole cruising portion of the flight, can be one of the following:

- K followed by 4 NUMERICS giving the True Airspeed in kilometres per hour;

- N followed by 4 NUMERICS giving the True Airspeed in knots when so prescribed by the appropriate ATS authority;
- M followed by 3 NUMERICS giving the Mach Number to the nearest hundredth of unit Mach;

4.2.2.2.5.2 ICAO Field 15b - Requested Cruising Level

- F followed by 3 NUMERICS, or
- S followed by 4 NUMERICS, or
- A followed by 3 NUMERICS, or
- M followed by 4 NUMERICS, or
- VFR

See data conventions in ICAO DOC 4444 section 1.6 of Appendix 3.

4.2.2.2.5.3 ICAO Field 15c - Route Description

A number of elements/groups of elements of the following seven types separated by SPACES, in whatever sequence is necessary to describe the route in an unambiguous manner (see ICAO DOC 4444 Appendix 2, Section 2).

4.2.2.2.5.3.1 (c1) Standard Departure Route

The designator for the Standard Departure Route from the aerodrome of departure to the first significant point on the defined route to be flown.

Note 1. See data convention in DOC 4444 section 1.6.3 a) of Appendix 3.

Note 2. Element (c1) may be followed by (c3) or (c4).

Note 3. Standard Departure Route need be included only where appropriate.

4.2.2.2.5.3.2 (c2) ATS Route Designator

Note 1. See data convention in DOC 4444 section 1.6.3 a) of Appendix 3.

Note 2. Element (c2) may be followed by (c3) or (c4) only.

4.2.2.2.5.3.3 (c3) Significant Point

Note. See alternative data conventions in DOC 4444 section 1.6.3 b), c), d) and e) of Appendix 3.

4.2.2.2.5.3.4 (c4) Significant Point/Cruising Speed and Cruising Level

SIGNIFICANT POINT (as in element (c3))

OBLIQUE STROKE

CRUISING SPEED OR MACH NUMBER (as in field 15a)

REQUESTED CRUISING LEVEL (as in field 15b).

4.2.2.2.5.3.5 (c5) Indicator

1. VFR if a change to VFR is to be made at the preceding point,
2. IFR if a change to IFR is to be made at the preceding point, or
3. DCT if the flight to the next point will be outside a designated route, unless both points are defined by geographical coordinates or by bearing and distance.
4. T if the route description is truncated at the preceding point and the remainder is to be sought in a previously transmitted FPL or other data.

Note 1. Element (c5) may follow (c3) or (c4) and (c6) only.

Note 2.— When used, T must conclude the Route Field.

4.2.2.2.5.3.6 (c6) Cruise Climb

The letter C followed by an oblique stroke; then the point at which cruise climb is planned to start, expressed exactly as in (c3) above, followed by an oblique stroke; then the speed to be maintained during cruise climb expressed exactly as in field 15a above followed by the two levels defining the layer to be occupied during cruise climb; each level expressed as in field 15b above, or the level above which cruise climb is planned, followed by the letters PLUS, without a space between them.

4.2.2.2.5.3.7 (c7) Standard Arrival Route

The designator for the Standard Arrival Route from the point of leaving the defined route to the point at which the approach procedure is initiated.

Note — Standard Arrival Route need only be included where appropriate.

Examples...

N0460F290 LEK2B LEK UA6 FNE UA6 XMM/M078F330 UA6N PON UR10N

CHW UA5 NTS DCT 4611N00412W DCT STG UA5 FTM FATIM1A

M082F310 BCN1G BCN UG1 52N015W 52N020W 52N030W 50N040W

49N050W DCT YQX

N0420F310 R10 UB19 CGC UA25 DIN/N0420F330 UR14 IBY UR1 MID

4.2.2.2.6 ICAO Field 16a - Destination Aerodrome

Four characters, being one of the following:

- The ICAO four-letter location indicator allocated to the destination aerodrome,
- ZZZZ if no ICAO location indicator has been allocated.

Note: If ZZZZ is used, the name of the destination aerodrome is to be shown in the Other Information Field (see Field Type 18).

4.2.2.2.7 ICAO Field 16b - Total Estimated Elapsed Time

Four Digits, giving the total estimated elapsed time.

Note: This field is optional in all message types other than ALR, FPL and SPL.

4.2.2.2.8 ICAO Field 16c - Alternate Aerodrome(s)

One or two further elements of field 16a should be added, as necessary, preceded by a space.

Four characters being one of the following:

- The ICAO four-letter location indicator allocated to an alternate aerodrome,
- ZZZZ if no ICAO location indicator has been allocated.

Note: If ZZZZ is used, the name of the alternate aerodrome is to be shown in the Other Information Field (see Field Type 18).

This field may be terminated here in FPL messages when so agreed between the ATS units concerned or prescribed on the basis of regional air navigation agreements.

4.2.2.2.9 ICAO Field 17a - Arrival Aerodrome

Four characters being one of the following:

- The ICAO four-letter location indicator allocated to the arrival aerodrome,
- ZZZZ if no ICAO location indicator has been allocated.

4.2.2.2.10 ICAO Field 17b - Time of Arrival

Four characters giving the actual time of arrival.

Note: This field is optional if an ICAO location indicator has been allocated to the arrival aerodrome.

4.2.2.2.11 ICAO Field 17c - Arrival Aerodrome

Name of arrival aerodrome, if ZZZZ is inserted in field 17a.

4.2.2.2.12 ICAO Field 18 - EET

Significant points or FIR boundary designators and accumulated estimated elapsed times over such points or FIR boundaries, when so prescribed on the basis of regional air navigation agreements, or by the appropriate ATS authority.

The field is optional and can be left blank.

Examples: CAP0745, XYZ0830 or EINN0204

4.2.2.2.13 ICAO Field 18 - RIF

The route details to the revised destination aerodrome followed by the ICAO four-letter location indicator of the aerodrome. The revised route is subject to re-clearance in flight.

The field is optional and can be left blank.

Examples: DTA HEC KLAX, ESP G94 CLA APPH, LEMD

4.2.2.2.14 ICAO Field 18 - REG

The registration markings of the aircraft; only if necessary if different from the aircraft identification in field 7.

The field is optional and can be left blank.

4.2.2.2.15 ICAO Field 18 - SEL

SELCAL Code, if so prescribed by the appropriate ATS authority.

The field is optional and can be left blank.

4.2.2.2.16 ICAO Field 18 - OPR

Name of the operator, if not obvious from the aircraft identification in field 7. This should be a three letter code such as BAW (British Airways) or AFR (Air France).

The field is optional and can be left blank.

4.2.2.2.17 ICAO Field 18 - STS

Reason for special handling by ATS e.g. hospital aircraft, one engine inoperative, e.g. STS/HOSP, STS/ONE ENG INOP.

The field is optional and can be left blank.

4.2.2.2.18 ICAO Field 18 - TYP

Type(s) of aircraft, preceded if necessary by number(s) of aircraft, if ZZZZ is used in field 9b.

The field is optional and can be left blank.

4.2.2.2.19 ICAO Field 18 - PER

Aircraft performance data, if so prescribed by the appropriate ATS authority.

The field is optional and can be left blank.

4.2.2.2.20 ICAO Field 18 - COM

Significant data related to communication equipment as required by the appropriate ATS authority, e.g. COM/UHF only.

The field is optional and can be left blank.

4.2.2.2.21 ICAO Field 18 - DAT

Significant data related to data link capability, using one or more of the letters S, H, V and M, e.g. DAT/S for satellite data link, DAT/H for HF data link, DAT/V for VHF data link, DAT/M for SSR Mode S data link.

The field is optional and can be left blank.

4.2.2.2.22 ICAO Field 18 - NAV

Significant data related to navigation equipment as required by the appropriate ATS authority.

The field is optional and can be left blank.

4.2.2.2.23 ICAO Field 18 - DEP

Name of departure aerodrome, if ZZZZ is inserted in field 13a, or the ICAO four-letter location indicator of the location of the ATS unit from which supplementary flight plan data can be obtained, if AFIL is inserted in field 13a.

The field is optional and can be left blank.

4.2.2.2.24 ICAO Field 18 - DEST

Name of destination aerodrome, if ZZZZ is inserted in field 16a.

The field is optional and can be left blank.

4.2.2.2.25 ICAO Field 18 - ALTN

Name of destination alternate aerodrome(s), if ZZZZ is inserted in field 16c.

The field is optional and can be left blank.

4.2.2.2.26 ICAO Field 18 - ORGN

7 character SITA or 8 character AFTN address.

The field is optional and can be left blank.

4.2.2.2.27 ICAO Field 18 - RALT

Name of en-route alternate aerodrome(s).

The field is optional and can be left blank.

4.2.2.2.28 ICAO Field 18 - CODE

Aircraft address (expressed in the form of an alpha-numerical code of six hexa-decimal characters) when required by the appropriate ATS authority. Example: 'F00001' is the lowest aircraft address contained in the specific block administered by ICAO.

The field is optional and can be left blank.

4.2.2.2.29 ICAO Field 18 - RMK

Any other plain language remarks when required by the appropriate ATS authority or deemed necessary by the Pilot-in-command for the provision of air traffic services.

The field is optional and can be left blank.

4.2.2.2.30 ICAO Field 18 - RVR

Runway visual range in meters;

The field is optional and can be left blank.

4.2.2.2.31 ICAO Field 18 - DOF

Date of flight in the format YYMMDD;

The field is optional and can be left blank.

4.2.2.2.32 ICAO Field 19 - E

4 NUMERICS giving the fuel endurance in hours and minutes.

The field is optional and can be left blank.

4.2.2.2.33 ICAO Field 19 - P

1, 2 or 3 NUMERICS giving the total number of persons on board, when so prescribed by the appropriate ATS authority.

The field is optional and can be left blank.

4.2.2.2.34 ICAO Field 19 - R

One or more of the following, without spaces:

- U if frequency 243.0 MHz (UHF) is available,
- V if frequency 121.5 MHz (VHF) is available,
- E if emergency locator transmitter (ELT) is available.

The field is optional and can be left blank.

4.2.2.2.35 ICAO Field 19 - S

One or more of the following, without spaces:

- P if polar survival equipment is carried,
- D if desert survival equipment is carried,
- M if maritime survival equipment is carried,
- J if jungle survival equipment is carried.

The field is optional and can be left blank.

ICAO Field 19 - J

One or more of the following, without spaces:

- L if the life jackets are equipped with lights
- F if they are equipped with fluorescein, followed by space followed by
- U if any life jacket radio is equipped with UHF on frequency 243.0 MHz,
- V if any life jacket radio is equipped with VHF on frequency 121.5 MHz.

The field is optional and can be left blank.

4.2.2.2.36 ICAO Field 19 - D

One or more of the following, separated by spaces:

- 2 NUMERICS giving the number of dinghies carried,

- 3 NUMERICS giving the total capacity, in persons carried, of all dinghies.
- C if dinghies are covered,
- The colour of the dinghies (e.g. RED).

The field is optional and can be left blank.

4.2.2.2.37 ICAO Field 19 - A

One or more of the following, separated by spaces:

- The colour of the aircraft
- Significant markings (this may include the aircraft registration)

The field is optional and can be left blank.

4.2.2.2.38 ICAO Field 19 - N

Plain language indicating any other survival equipment carried and any other useful remarks.

The field is optional and can be left blank.

4.2.2.2.39 ICAO Field 19 - C

Name of the pilot-in-command.

The field is optional and can be left blank.

4.3 Network Connectivity Window

This window displays information about the network configuration and node availability associated with the servers, clients and AFTN switch.

The window can be opened and closed by double clicking the icons or their associated text displayed in the status bar. If the window is opened when the status bar is double clicked the window is closed, if closed it is opened. The double click action toggles the display of the window.

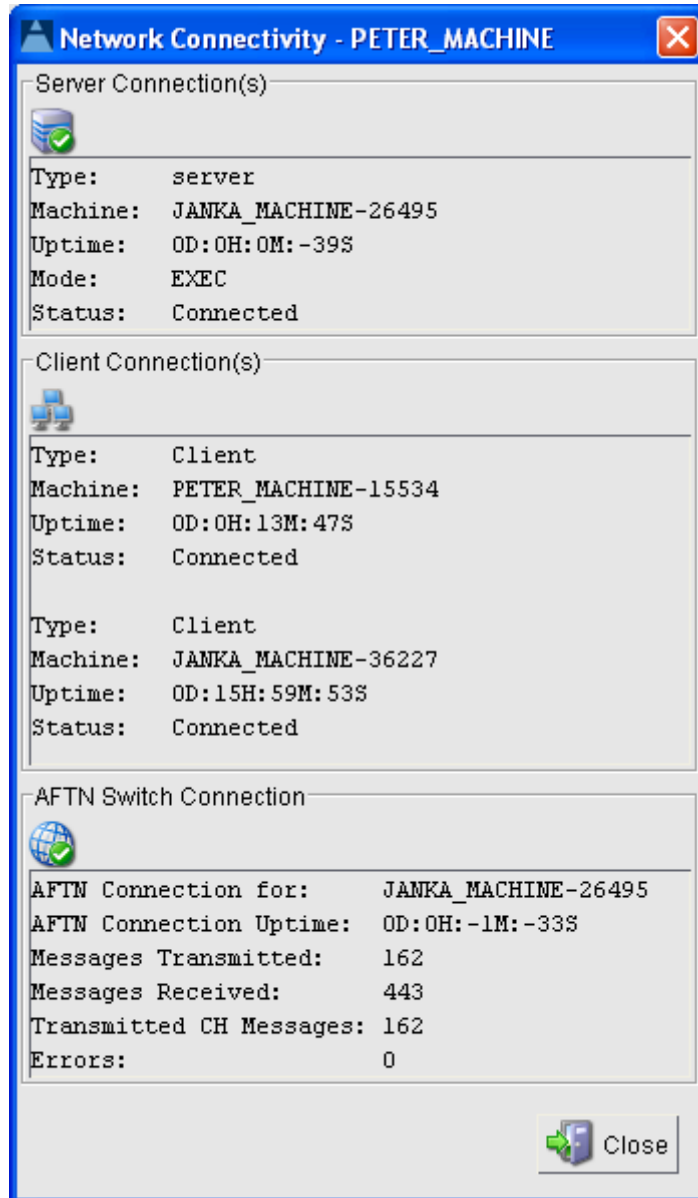


Figure 9 - Network Connectivity Window

The window is divided into three sections; each section provides availability and network configuration information about the servers, clients and AFTN switch.

The information displayed is cyclically updated once a second.

In the screen shot shown, a single instance of a server and client are running; if there were a standby server this would be shown in addition to executive server in the 'Server Connection(s)' part of the window.

Additional clients would be shown in the section of the window displaying the client information.

The AFTN details pertain to a single server; if two servers are running the status for each servers AFTN switch connection would be shown. As only one server is up and running in the screen shot shown above, there is only one AFTN switch connection shown.

5 Appendix A – Command Availability Matrix

	Accelerator Keys	Toolbar	File menu	Edit menu	Help Menu	Tree view popup	Summary list popup	Editor popup	Text Editor	Form Editor	Network Connectivity
About	-				✓						
Check	-	✓						✓	✓	✓	
Copy	CTRL C			✓				✓			
Create copy (FPL only)	CTRL Shift C	✓					✓				
Cut	CTRL X			✓				✓			
Delete message	CTRL D	✓		✓			✓	✓			
Display original message (read only)	CTRL Shift M	✓					✓				
Edit original message, (form editor)	CTRL Shift F	✓					✓				
Edit original message, (text editor)	CTRL Shift E						✓				
Exit	-		✓								
Folder manipulation	-		✓			✓					
Help Contents	F1				✓						
Open selected form editor (creates new message)	-	✓	✓								
Paste	CTRL V			✓				✓			
Print individual message	CTRL Shift P						✓	✓			
Print summary list	CTRL P	✓	✓								
Read toggle	-						✓				
Redo	CTRL Y			✓				✓			
Reply to message (select message title for response)	-						✓				
Save	-	✓						✓	✓	✓	
Select all	CTRL A			✓				✓			
Send	-	D							✓	✓	
Undo	CTRL U			✓				✓			
Status bar icons (double click)	-										✓

Table 2 - Command Availability Matrix

D – Only enabled when the ‘Draft’ folder has been selected;

6 Appendix B – Acronyms

Acronym	Description
A	
ACH	ATC Change Message (ICAO format, CFMU special)
ACP	Acceptance message (OLDI)
ADEXP	ATS Data Exchange Presentation
AFP	ATC Flight Plan proposal Message (ICAO)
AFTN	Aeronautical Fixed Telecommunications Network
AIP	Aeronautical Information Publication
APL	ATC Flight Plan Message (ICAO)
ARR	ICAO ATS Arrival Message
ATA	Actual Time of Arrival
ATD	Actual Time of Departure
ATM	Air Traffic Management
ATS	Air Traffic Service
C	
CDN	Coordination Message (OLDI)
CDP	Configuration Data Preparation
CFMU	Central Flow Management Unit
CHG	ICAO ATS Change Message
CNL	ICAO ATS Cancel Message
COTS	Common Off The Shelf
CPL	ICAO ATS Current Flight Plan Message
CWP	Controller Working Position
D	
DEP	ICAO ATS Departure Message
DLA	ICAO ATS Delay Message
DOF	ICAO Field 18 subfield, Date of Flight
DPS	Data Playback System
E	
EET	Estimated Elapsed Time
EST	ICAO ATS Estimate Message
EUROCONTROL	European Organisation for the Safety of Air Navigation
F	
FNM	ICAO ATS Message (Oceanic)
FPL	Flight Plan Message (ICAO)
G	
GUI	Graphical User Interface
I	
ICAO	International Civil Aviation Organisation
IP	Internet Protocol
M	
METAR	Meteorological Aviation Routine Report
MFS	ICAO ATS Message (Oceanic)
N	
NOTAM	Notice To Airmen
P	
PANS	Procedures for Air Navigation Services
R	
RQP	Request Flight Plan (ICAO)
RQS	Request Supplementary Information (ICAO)

	Acronym	Description
S		
	SC	Soft Copy
	SMC	System Monitoring and Control
	SPL	ICAO ATS Supplementary Flight Plan Message
T		
	TBD	To Be Decided
	TBP	To Be Provided
	TCP	Transmission Control Protocol
U		
X		
	XML	Extensible Mark up Language