En Route Automation Modernization (ERAM)

Air Traffic Manual (ATM): RA-Position User Manual

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Preface

This manual, the *ERAM Air Traffic Manual (ATM): RA-Position User Manual*, provides the Air Traffic Controllers with a reference manual on how to use the interface features of the ERAM RA-Position. It is intended to be used by Air Traffic Controllers who have completed an introductory training course of instructor-led lessons, hands-on training.

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1. INTRODUCTION

This chapter introduces the manual and provides general information regarding ERAM Enhancements and the RA-Position Overview. Major topics are:

- About this User Manual
- ERAM Functional Enhancements
- RA-Position Overview

1.1 About This User Manual

This section describes the purpose of the document, intended audience and the symbols and conventions used throughout the document.

1.1.1 Purpose

The purpose of this document is to provide Air Traffic Controllers with a reference manual on how to use the interface features of the ERAM RA-Position. This manual is not intended to teach Air Traffic Controllers their job functions; it is intended to be used by Air Traffic Controllers who have completed an introductory training course of instructor-led lessons, hands-on training.

1.1.2 Organization

This manual is organized into sections as shown in Table 1–1, Manual Organization. This table lists each major section and provides a brief description of the contents.

Table 1–1. Manual Organization

Section	Description
Section 1, *Introduction*	Introduces the manual and provides general information regarding ERAM Enhancements and the RA-Position Overview
Section 2, *RA-Position CHI*	Provides information on some basic RA-Position Computer-Human Interface (CHI) concepts
Section 3, *Aircraft List View*	Describes characteristics of the Aircraft List View
Section 4, *Departure List View*	Describes characteristics of the Departure List View
Section 5, *Graphic Plan Display*	Describes characteristics of the Graphic Plan View
Section 6, *Plans Display*	Describes characteristics of the Plans Display
Section 7, *Wind Grid Display*	Describes characteristics of the Wind Grid Display
Section 8, *NOTAMS View*	Describes characteristics of the NOTAMs View
Section 9, *GI Messages View*	Describes characteristics of the GI Messages View
Section 10, *SIGMETS View*	Describes characteristics of the SIGMETS View

Table 1–1. Manual Organization (Continued)

Section	Description
Section 11, *Weather Station Report View*	Describes characteristics of the Weather Station Report View
Section 12, *Altimeter Settings View*	Describes characteristics of the Altimeter Settings View
Section 13, *Status View*	Describes characteristics of the Status View
Section 14, *Outage View*	Describes characteristics of the Outage View
Section 15, *Flight Event List View*	Describes characteristics of the Flight Event List (FEL) View.
Section 16, *Keyboard Shortcuts*	Commands described in this Chapter allow access to various functions without the use of the trackball

1.1.3 Symbols and Conventions

The following conventions have been used throughout this manual:

Symbol	Convention
 **CAUTION!**	The **Caution** symbol warns of a potentially negative unintended consequence of making an entry.
	The **ALT** symbol indicates an alternative method for performing an action.
	The keyboard icon indicates that the keyboard is to be used to enter the message.

1.2 ERAM Functional Enhancements

This section provides information on the functional enhancements to the ATC system introduced by ERAM. It covers the new capabilities provided by ERAM and the specific ways in which they differ from Host. The following enhanced capabilities are covered:

- Flight Planning Area of Interest (AOI)
- Surveillance
- Tracking
- Safety Alerts
- Situation Display Symbology
- Aircraft in the AOI

1.2.1 Flight Planning Area of Interest (AOI)

ERAM introduces concept of Area of Interest (AOI):

- Flight Plan AOI
- Surveillance

The Flight Planning AOI is an adapted area outside of the Center Boundary within which flight plan data will be available from other ERAM facilities. Figure 1–1, Area of Interest, shows an example of AOI.

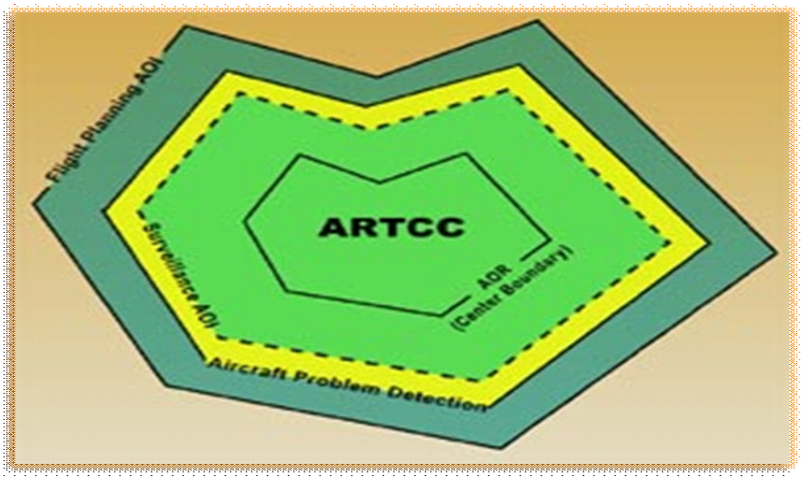


Figure 1–1. Area of Interest

The AOI represents a significant expansion of the availability of flight plan data. Within the flight planning AOI is the **Aircraft Problem Detection Area**. The Aircraft Problem Detection Area boundary defines the area within which the user will receive conflict probe alerts. Inside of the Aircraft Problem Detection Area boundary is the **Surveillance AOI**. The Surveillance AOI defines the area where the user will see targets, safety alerts, and data blocks. ERAM provides the capability to adapt this boundary to cover a much larger area than was possible in Host. The Center Boundary is referred to as the **Area of Responsibility** or **AOR**.

The implementation of the Flight Planning and Surveillance AOI will increase the availability of data for controllers. Of most interest to controllers is the Surveillance AOI because, within the Surveillance AOI, controllers have the ability to see both flight plans and data blocks for aircraft that pass near, but that do not enter their facility.

1.2.1.1 AOI and Pairing of Flight Plan to Track

The AOI allows better preservation of the pairing of the flight plan to the radar track as the flight moves from one facility to the next. Figure 1–2, Pairing of Flight Plan, shows a flight is moving from Facility B into Facility A and then re-entering Facility B.

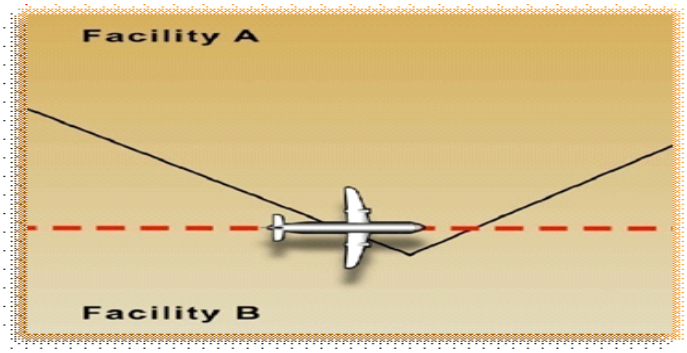


Figure 1–2. Pairing of Flight Plan

ERAM will attempt to preserve the pairing of the flight plan to the radar track as the flight moves into the adjacent facility. In most cases, this will eliminate the need to drop the track and then restart the track when the flight re-enters the original facility. In this example, ERAM will attempt to preserve the CID and beacon code of the flight if the time in Facility A is short.

1.2.1.2 AOI Effect on Handoffs

The introduction of AOI has brought about some enhancements to handoffs. ERAM allows handoffs to be directed to a sector in an ERAM facility that is not on the flight plan route. This can only be accomplished between two ERAM facilities and the receiving sector must be identified. Figure 1–3, Deviation From a Flight Plan Route, shows examples of deviations from the flight plan route. The left half of the figure shows the flight deviated into Facility C when Facility C was NOT on the original flight plan route. The right half of the figure shows the flight deviated into Facility C when Facility C was on the original flight plan route.

Figure 1–3. Deviation From a Flight Plan Route

ERAM provides the capability for the flight to be handed off to Facility B or directly to Facility C in both of these cases.

Data blocks and flight data are available for aircraft in the AOI. Since ERAM provides continuous updates to the flight data on all aircraft in the AOI, data blocks displayed in adjacent facilities will reflect changes

made by the controlling facility. Only data blocks forced with a point out message from the controlling facility are eligible for Unsuccessful Transmission Message (UTM) service.

1.2.2 Coordination

Figure 1–4, Coordination, is an example of coordination. The Route is based on Aircraft Trajectory when no Adapted Arrival Route (AAR) exists or an AAR is overridden with a splat (*).

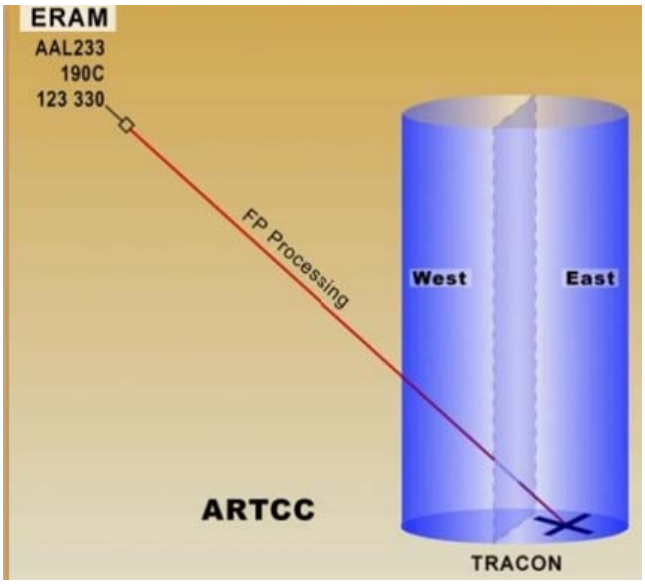


Figure 1–4. Coordination

1.2.3 Conflict Alert Processing

Conflict alert processing has changed with ERAM. The criteria used to apply alert notifications have also changed. Conflict alert processing in ERAM uses appropriate separation criteria in its look-ahead capabilities to apply alert notifications. ERAM accommodates multiple separation criteria:

- Standard Separation Area (5 nautical miles [NM])
- Reduced Separation Area (3 nautical miles [NM])

Figure 1–5, Different Separation Areas, shows the two different separation areas. In this example, conflict alert would notify the controller of the predicted loss of separation in the 5 mile separation area.

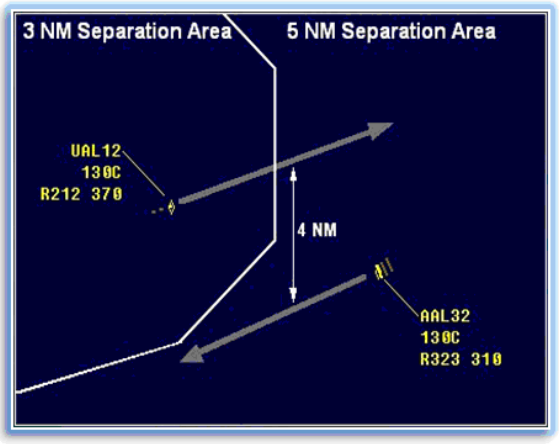


Figure 1–5. Different Separation Areas

ERAM also has the ability to apply a 3-mile, increasing to 5-mile, conflict alert criteria in transitional airspace as shown in Figure 1–6, Transitional Airspace. In the situation shown, Host will display a conflict alert.

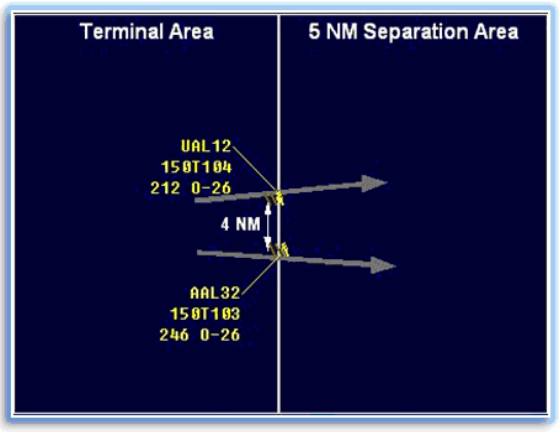


Figure 1–6. Transitional Airspace

In ERAM, if the sector is covered by a Letter of Agreement (LOA) authorizing transitional separation, the system could be adapted to apply transitional conflict alert criteria if:

- The aircraft are on diverging routes or courses
- The faster aircraft is in front
- The aircraft have at least a 3-mile separation constantly increasing

1.2.3.1 Conflict Alerts and E-MSAWs

Conflict alerts are calculated by ERAM for paired aircraft in an adjacent center's airspace even if neither of the aircraft is controlled in the local center. If an aircraft enters another ERAM sector without a handoff, whether in the local facility or not, a full data block will be forced to that sector. In Figure 1–7, Conflict Alerts and E-MSAWs, a conflict between the two flights would be displayed in Center B only if an FDB is forced for one of the two.

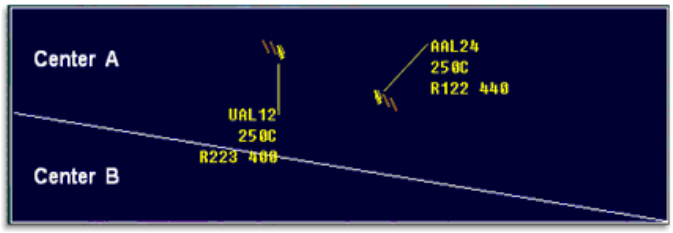


Figure 1–7. Conflict Alerts and E-MSAWs

E-MSAWs are also calculated for controlled aircraft in adjacent centers. As with conflict alerts, E-MSAWs in an adjacent center are displayed only if an FDB is forced for the flight.

1.2.3.2 Mode C Intruder (MCI) Alerts

Better availability of flight data with ERAM will allow some conflicts that would have been displayed previously as Mode C Intruder (MCI) alerts to be displayed as conflicts alerts between two paired aircraft. An example of this is shown in Figure 1–8, Mode C Intruder Alerts. Unlike MCI alerts, all conflict alerts are eligible for operational error detection.

Figure 1–8. Mode C Intruder Alerts

1.2.3.3 Visual Flight Rule Conflicts

A couple of additional safety enhancements have been introduced by ERAM. First, separate safety alert parameters can be adapted for Visual Flight Rule (VFR) conflicts (Figure 1–9, Safety Enhancements). For example, the parameter could be set to only provide conflict alerts if the aircraft will be closer than 2 miles.

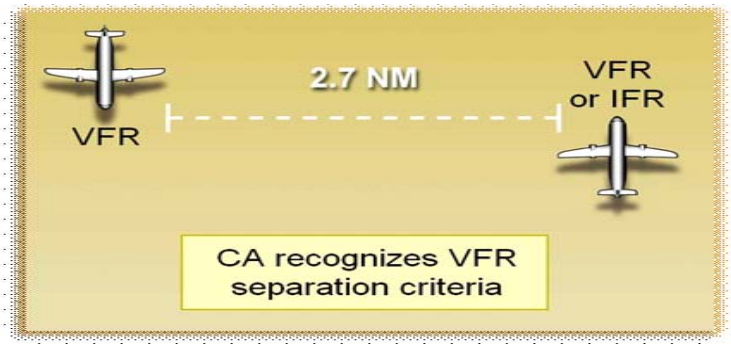


Figure 1–9. Safety Enhancements

The second is that if an aircraft enters another ERAM sector without a handoff, whether in the current facility or not, a full data block will be forced to that sector. Conflict Alert (CA) recognizes adapted VFR separation.

1.2.3.4 Aircraft Alert Volumes (AAVs)

ERAM introduces new adaptable definitions of sections of airspace called Aircraft Alert Volumes or (AAVs) as shown in Figure 1–10, Aircraft Alert Volumes.

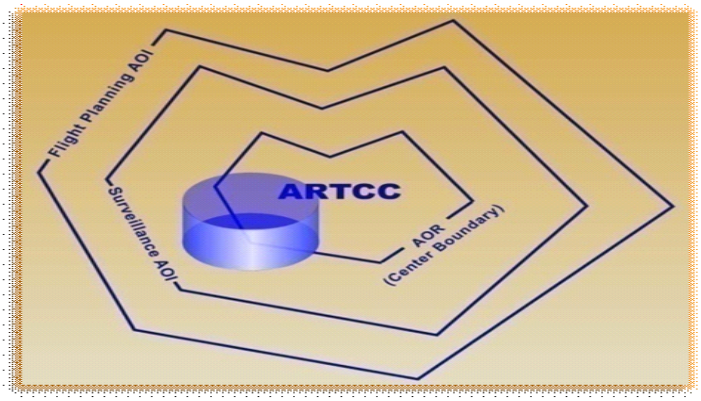


Figure 1–10. Aircraft Alert Volumes

Each AAV airspace can be adapted to have different conflict alert values. This flexibility will improve the accuracy of conflict alerts and will reflect the correct separation criteria; for example, 3 NM vs. 5 NM. This change will reduce nuisance alerts in reduced separation airspace volumes.

1.2.4 Radar and Surveillance

Radar coverage is enhanced because ERAM provides the ability to adapt an increased number of radars in a center. Figure 1–11, Radar Coverage Enhancements, is an example of ERAMs Radar Coverage Enhancement.

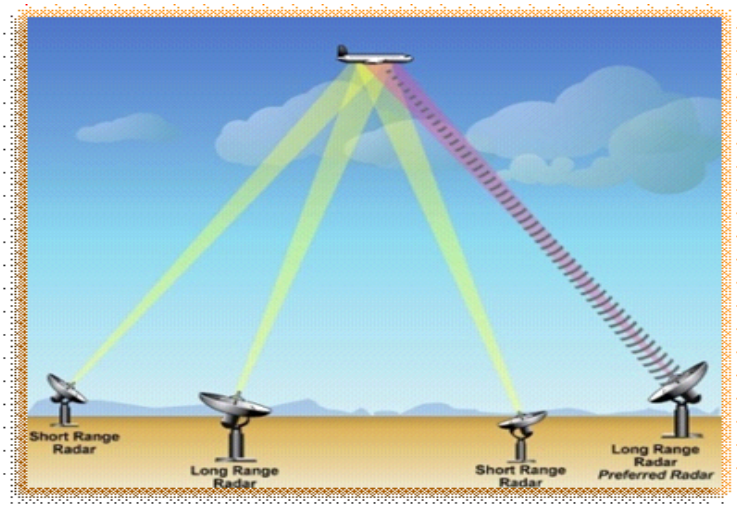


Figure 1–11. Radar Coverage Enhancements

The assignment of supplemental radars to airspace is more flexible in ERAM because ERAM provides the capability to adapt several additional altitude tiers and an increased number of radars in each tier. This flexibility reduces the likelihood a radar target will be missed due to radar outages or incomplete radar coverage. This improved flexibility in the definition of airspace volumes has improved the support for reduced separation areas.

In Host, tracks were updated by quadrant. In ERAM, tracks are updated when the radar data is received. Due to the increased number of radar returns available for any aircraft, in some instances when the preferred radar misses a scan, target updates may occur at different time intervals from a lower priority radar.

1.2.5 Radar Tracking and Pairing

ERAM tracks every radar target and attempts to pair each radar track with an active flight plan. If there is a mismatch between the squawked code and the established or assigned code of a target, the data block will “un-pair” from the target and go into coast status (Figure 1–12, Enhanced Radar Tracking and Pairing). The controller can “re-pair” the data block with the target using the “/D” delimiter with the QT command. The "/D" delimiter overrides all system pairing rules when it is entered.

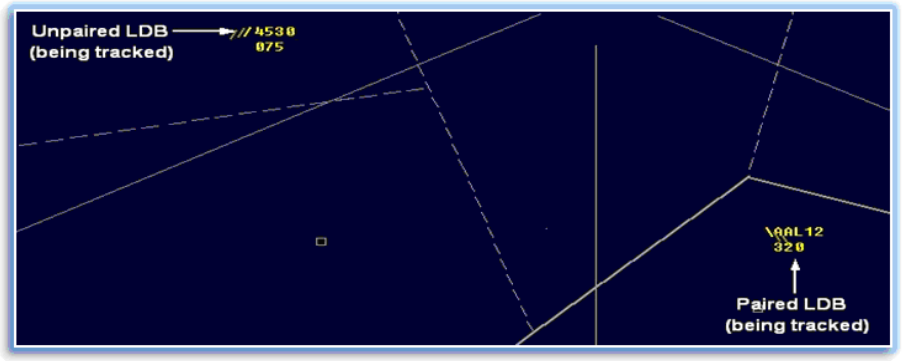


Figure 1–12. Enhanced Radar Tracking and Paring

There are situations in which radar target returns are supported by beacon data but are not eligible to be automatically converted into a track. Without the track, the corresponding flight cannot be paired. Enhanced tracking and pairing capabilities allow the controller to manually start a track via the QT command. This action “jump-starts” the track and pairs it to the flight.

1.2.6 New RA-Position Views

While Most RA-Position views are the same or have only minor changes, five new views have been added to the RA-Position. Each View is listed and described below. More detail on each view is provided in the respective chapter in this manual.

1. **Altimeter Settings (AS)**: provides the user with relevant altimeter station name(s), time of altimeter reading, and the altimeter settings. Additional information on the AS View is found in Section 12, *Altimeter Settings View*.
2. **Weather Station Report**: provides the user with relevant weather station name(s), time of the weather station reading, and the weather station reported information. Additional information on the Weather Station Report View is found in Section 11, *Weather Station Report View*.
3. **Notice to Airman (NOTAMS)**: provides the user with NOTAM message Additional information on the NOTAMS View is found in Section 8, *NOTAMS View*.
4. **Significant Meteorological Information (SIGMETS)**: provides the user with SIGMET messages. Additional information on the SIGMETS View is found in Section 10, *SIGMETS View*.
5. **General Information (GI) Message**: provides the user with GI messages. Additional information on the GI View is found in Section 9, *GI Messages View*.

ERAM also merges the functions of the URET Hold Annotation Menu and the Host Hold Menu. While the information that can be entered has not changed, the layout of the RA-Position Hold Data Menu is different. The **direction**, **turns**, and **leg length** buttons are now side by side and the **Delete** button has moved (see Figure 1–13, Hold Data Menu).

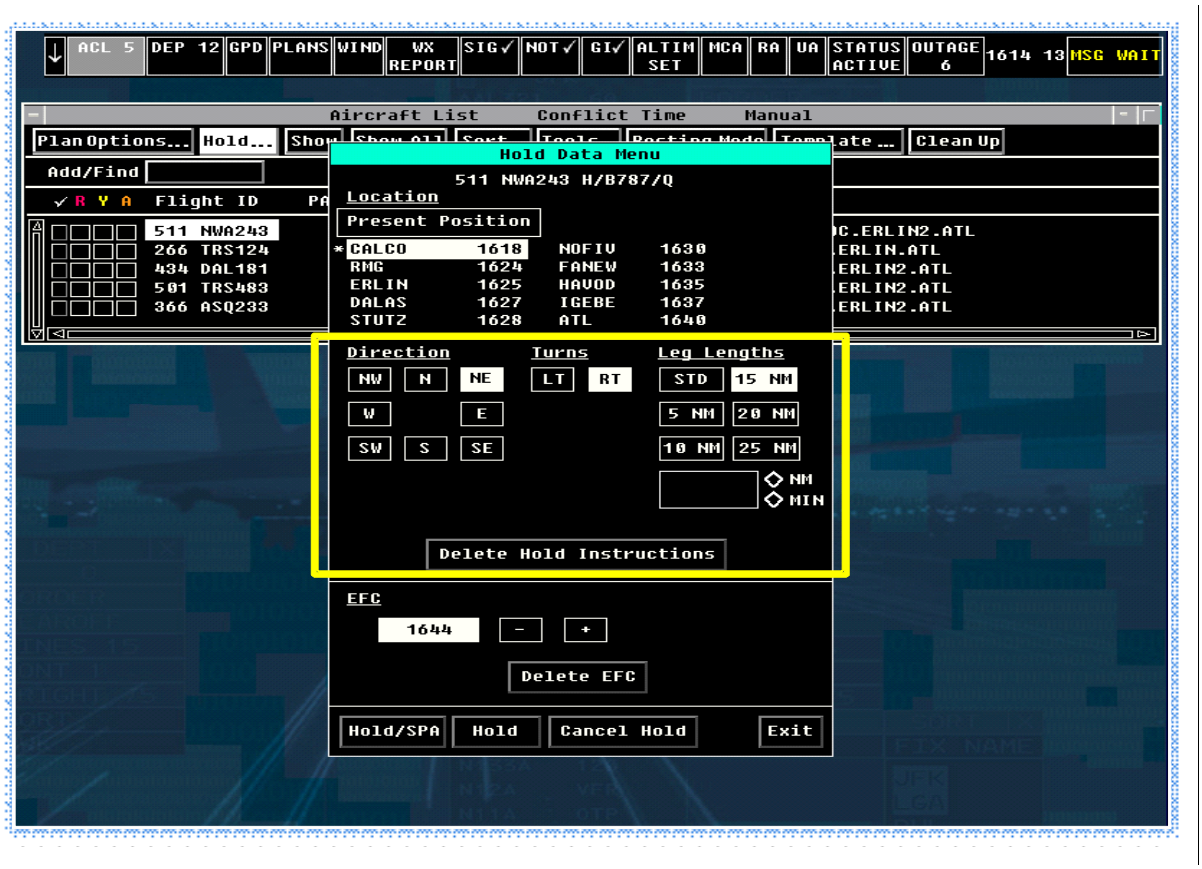


Figure 1–13. Hold Data Menu

Hold Data is entered in the same way as before; however, in ERAM entering data in the Hold Data Menu for a flight that is not in Hold will now generate a Hold message to place the flight in hold.

The Expect Further Clearance (EFC) time is used for downstream coordination, such as boundary crossing and fix estimates. If no EFC time is entered, the flight will be placed in indefinite hold. The Hold instructions and EFC time can be edited before and after the flight reaches the Hold fix. The Holding fix can be modified if the flight has not yet reached it. More information is provided in Section 3.2.2, Hold Data Menu.

The RA-crud has changed its format. The RA-crud components are now in three views:

1. Update Area (UA)
2. Message Composition Area (MCA)
3. Response Area (RA)

Each of these views is accessed through a button in the RA-Position toolbar corresponding to their abbreviation. A brief description of each view is provided in the following subsections.

1.2.6.1 Update Area View

The header for the UA View has changed to reflect the ERAM interface, but the format and operation of the view has not changed. As always, when a message is waiting to be viewed, **MSG Wait** appears in the RA-Position toolbar button. Clicking on the **MSG Wait** button will also display the view if it is suppressed. Click in on **Message Waiting** in the UA View or pressing the **Message Acknowledge** key on the keyboard displays the waiting message (see Figure 1–14, Update Area View).

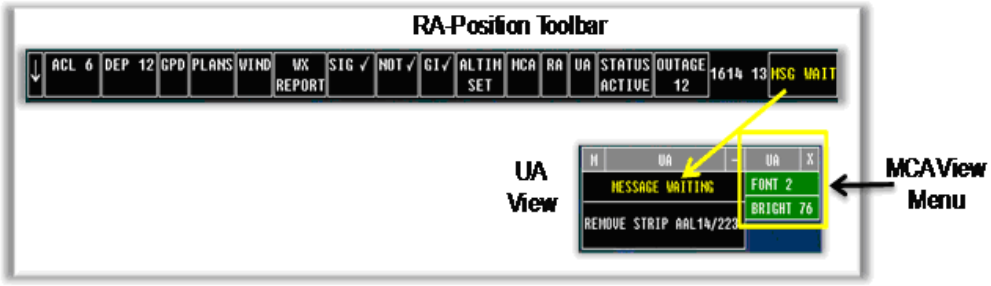


Figure 1–14. Update Area View

There are other minor changes to the UA View. Crud updates are only provided on flights with strip printing enabled. To change the number of lines displayed, and the font and brightness of the view text, use the UA View Menu. If the text will not fit in the view based on the number of lines displayed, scroll bars will appear.

1.2.6.2 Message Composition Area View

The RA-Position Message Composition Area (MCA) View (Figure 1–15) is accessed through the MCA button on the RA-Position toolbar. The view has no header and includes a **Preview** and **Feedback** Area. The Preview Area is used for message composition. The Feedback Area displays messages entered into the system from the Preview Area. Since the MCA has no view header, the method for moving it is slightly different from other ERAM views. To move the MCA View, left-click anywhere in the view (except arrows), move the view to the desired location, and then left-click again.

Figure 1–15. Message Composition Area (MCA) View

The Preview Area of the MCA View is initially displayed as two lines and can expand as more characters are entered. To set the number of lines displayed for the Preview Area, the user must first access the MCA View Menu (Figure 1–16) and then select the **PA LINES** button. To access the MCA View Menu, middle-click anywhere in the MCA View (except arrows or scroll bars). When more than 6 lines are displayed in the Preview Area the view expands to the “PA LINES” setting before displaying the Scroll pick areas.

The Feedback Area is initially displayed as 4 lines and can expand to a maximum of 30 lines when the “WIDTH” MCA View Menu button is set to 50 characters and a maximum of 34 lines when the width is set to 30 characters. The Preview Area can contain a maximum of 1500 characters (30 lines of 50 characters) when the width is set to 50 characters and a maximum of 1020 characters (34 lines of 30 characters) when the width is set to 30 characters. To change the font size on the MCA View, middle-click on the **FONT** option of the MCA View Menu to increment and left-click to decrement. To change the brightness on the MCA View, middle-click on the **BRIGHTNESS** option of the MCA View Menu to increment and left-click to decrement.

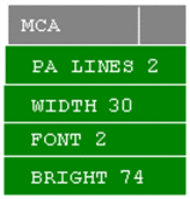


Figure 1–16. Message Composition Area (MCA) View Menu

1.2.6.3 Response Area (RA) View

The Response Area (RA) View provides the user with an area to display requested messages. The RA View is separate from the MCA View and is accessed through the RA button on the RA-Position toolbar. The RA View, shown in Figure 1–17, contains a Flight Plan Readout request routed specifically to the RA View. The readout contains a non-Automated Dependant Surveillance-Broadcast (ADS-B) indicator. The non-ADS-B indicator consists of a coral “A” that is inserted to the left of the CID when a flight is not ADS-B equipped (proposed flights), or when a track indicates there is no ADS-B (active flights).

The RA View is raised to the top of the view stack when the user requests information to be displayed there. Because it has no title bar, the method for moving it is slightly different from other ERAM views. To move the RA View, left-click anywhere in the view (except arrows), move the view to the desired location, and then left-click again.

Only one message at a time is displayed in the RA View as the request of a new message replaces the currently displayed message. The view automatically expands up to ten lines to display a requested message. After 10 lines the scroll pick areas are displayed allowing up to a maximum of 300 lines. When the view automatically expands it expands upwards the number of lines required to display the message. If the view cannot expand upwards, it expands downwards to display the message. The RA View automatically contracts if the next response contains fewer lines than the message that’s currently displayed in the RA, but will not contract below four lines.

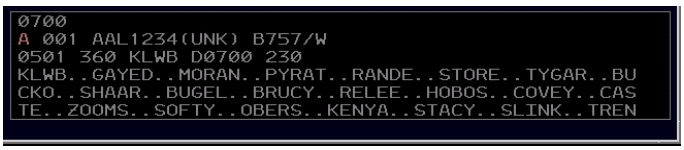


Figure 1–17. Response Area (RA) View

The RA View Menu, provides the capability to set the width for the RA View (25 or 50 maximum character width), the font size of the RA View, and also the brightness of the RA View response text. The CLEAR option of the RA View Menu provides the capability to clear the response text from the RA View. The RA

View Menu may be accessed through the RA View by placing the trackball cursor over the RA View and selecting within the view with the middle trackball button.

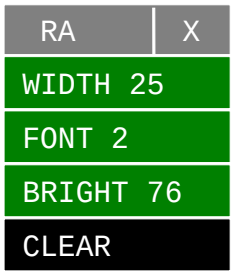


Figure 1–18. Response Area (RA) View Menu

1.3 RA-Position Workstation Overview

The ERAM system provides Air Traffic Control personnel with advanced tools to manage information and to facilitate interacting with the information. This section provides an introduction to the RA-Position interface and the hardware and software changes to the RA-Position brought about by ERAM.

1.3.1 Physical Layout and Configuration

Figure 1–19, RA-Position Workstation and Flat Panel Display, shows the RA-Positions physical layout and configuration. The main interface with the system is a 20-inch flat panel display (on the right) mounted on a moveable arm that can be adjusted for viewing at the RA-Position or the R-Position.

Figure 1–19. RA-Position Workstation and Flat Panel Display

Figure 1–20, Monitor Buttons, shows the indicators and controls for the flat panel display which are described as follows:

a. **Power Button**: turns the flat panel display on and off.

b. **Exit**: exits the control menus.

Directional Control Buttons:

a. **Up/Down Arrows**: moves the highlighted area up or down to select one of the controls.

b. **Left/Right Arrows**: on the Main Menu, moves the controls left or right to select a Control Sub-Menu. On a Control Sub-Menu, moves the bar left or right to increase or decrease adjustments such as brightness, contrast, and image position.

c. **Proceed**: on the Main Menu, this button has no function. On a Control Sub-Menu, it activates the Auto Adjust and All Reset Functions.

d. **Reset**: on the Main Menu, resets the highlighted control menu to the factory setting. On a Control Sub-Menu, resets the highlighted control to the factory setting.

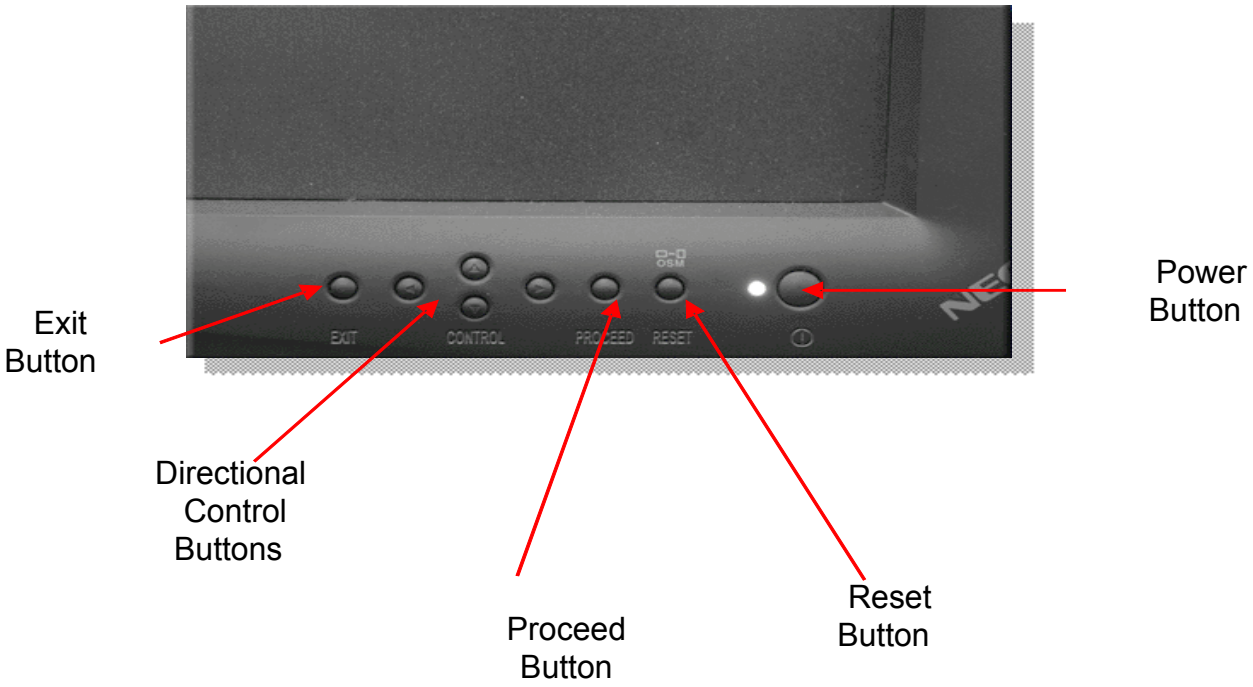


Figure 1–20. Monitor Buttons

The user at the RA-Position enters commands by using a trackball device and/or keyboard. Each device is described in the following subsections.

1.3.2 RA-Position Trackball

The trackball is used to initiate actions by selecting items from displays and menus. The trackball has three buttons as shown in Figure 1–21, Trackball.

1. Select button (Left)
2. Implied Command button (Middle)
3. Implied Delete button (Right)

Figure 1–21. Trackball

Selecting an object with the **Select (left) trackball button** selects an object for a subsequent command action or executes an immediate action. The Select trackball button is used to make all selections described in this document unless the Implied Command or Implied Delete trackball button is specified. While the trackball cursor is in the Hot Box in the Aircraft List or the Departure List, the left trackball button is used to open and close the Free-Form Text Area.

Selecting an object with the **Implied Command (middle) trackball button** activates an implied command. While the trackball cursor is in a Hot Box in the Aircraft List or the Departure List, the middle trackball button is used to designate an entry for special attention and to remove the designation.

Selecting an object with the **Implied Delete (right) trackball button** removes information from display. While the trackball cursor is in a Hot Box in the Aircraft List or the Departure List, the right trackball button is used to apply and remove angulation coding from an entry.

When the trackball cursor is positioned on a selectable object, dwell emphasis is provided. A positive indication of object selection is provided. A selected object is deselected in the following ways: clicking on it again, executing a command, or making another selection.

1.3.3 RA-Position Keyboard

A custom keyboard (Figure 1–22, RA-Position Keyboard) is available for typing or editing data in entry fields or input boxes at the RA-Position.

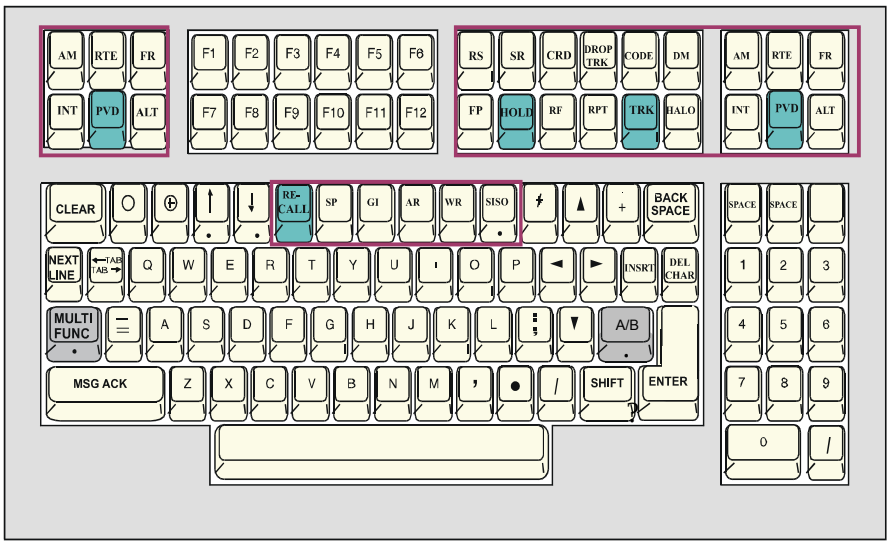


Figure 1–22. RA-Position Keyboard

The Tab key on the RA-Position keyboard is used to tab from input box to input box within the displayed data of any window that contains multiple input boxes. Tabbing to an input box causes the input box to become active. Pressing the **Tab** key again activates the next available input box. Pressing Shift and Tab together (**Shift/Tab**) activates the previous input box. In the Aircraft List, assuming the Add/Find Aircraft input box is currently active, then pressing the Tab key would cause the Free-Form Text input box to become active, if displayed. If there is no Free-Form Text input box, the first input box in the window (**Add/Find Aircraft**) would become active. If the Add/Find Aircraft input box is active and the user presses Shift/Tab, then the last displayed Free-Form Text input box would become active.

When a Cursor Arrow key on the RA-Position keyboard is pressed, the cursor moves one character space in the direction indicated by the arrow. Data within the window is automatically scrolled one line when necessary to keep the cursor in the view.

a. If the keyboard cursor is located at the last character position of the last line when the cursor arrow right key is pressed, the cursor's position does not change.

b. If the keyboard cursor is located at the first character position of the first line when the cursor arrow left key is pressed, the cursor's position does not change.

c. If the keyboard cursor is located at the last character position of a line other than the last line displayed in the text entry area and the cursor arrow right key is pressed, the keyboard cursor will move to the first character position in the next line.

d. If the keyboard cursor is located at the beginning of a line other than the first displayed line of the text entry area when the cursor arrow left key is pressed, the keyboard cursor will move to the last character position in the previous line.

e. If the keyboard cursor is located in the first line of data and the cursor arrow up key is pressed, then the cursor moves to the beginning of the line.

f. If the keyboard cursor is located in the last line of data when the cursor arrow down key is pressed, then the cursor moves to the last character position at the end of the line.

Pressing the **Backspace** key on the RA-Position keyboard will result in deletion of the character or space that precedes the current cursor location. Data will be scrolled as necessary to keep the cursor in view. If the keyboard cursor is located at the first character position of the first line of the text area when the Backspace key is pressed, then the key press has no result.

The system has the capability to initiate message composition from the RA-position with just a function key press. Pressing one of the 30 hard-labeled Function keys (outlined keys in Figure 1–22) on the RA-position keyboard or pressing the MULTI FUNC key (bottom left) in conjunction with a function key always results in keystrokes being routed to the MCA View, regardless of where focus currently resides and regardless of whether any input box is currently active. When one of the 30 hard-labeled function keys is pressed, with or without MULTI FUNC, the MCA View is raised.

2. RA-POSITION CHI

This chapter provides information on some basic RA-Position Computer-Human Interface (CHI) concepts. Topics covered include:

- RA-Position Toolbar
- Displaying System Status
- Manipulating RA-Position Views
- User Interface Buttons

2.1 RA-Position Toolbar

The RA-Position Toolbar enables the user to display and suppress views at the RA-Position workstation. It also provides:

- a current count of the number of flights in the Aircraft List and Departure List
- the current time (i.e. UTC: Coordinated Universal Time)
- a Message Waiting (MSG WAIT) indicator
- a Channel Mode Banner

Except for the area taken up by the toolbar, the entire viewable RA-Position workstation monitor screen is available to display system views.

Yellow coding is used in a toolbar button to indicate that user action is required for an RA-Position view. For the toolbar shown in Figure 2–1, RA-Position Toolbar — User Action Required, the following yellow coding applies:

- The SIGMETS (SIG), NOTAMS (NOT), and General Information (GI) buttons: have a yellow border and yellow text when there are unacknowledged entries in their view. Numbers on the buttons indicate the number of unacknowledged entries.
- STATUS button (yellow background and black text): view is not displayed and the alternate channel indicator has been added or deleted, or the current channel mode has been changed. The user changing from one channel to another will not trigger yellow coding.
- The OUTAGE button (yellow background and black text): view is not displayed and there is at least one unacknowledged, additional status change(s) and no unacknowledged safety critical service status change(s).
- The MSG WAIT button: text is yellow indicating that there are messages in the queue waiting to be displayed in the Update Area View.

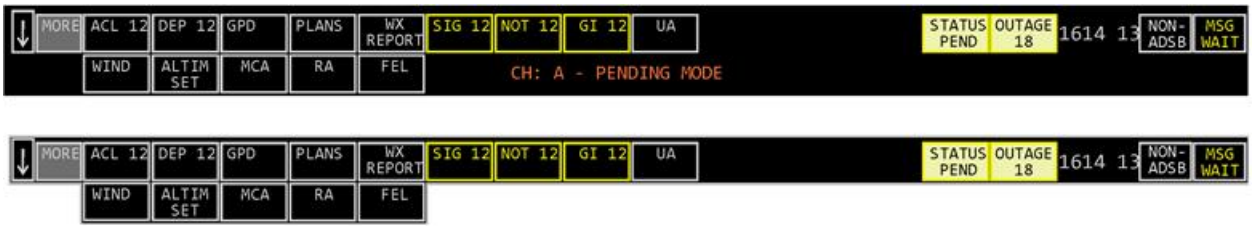


Figure 2–1. RA-Position Toolbar — User Action Required

When no user action is required, toolbar buttons will have a black background and a white label as shown in Figure 2–2, RA-Position Toolbar — No User Action Required. The white check mark (√) shown in the toolbar button replaces the number of new entries to indicate that there are no new entries in the respective view. When there are no entries associated with the respective view, the white check mark (√) is removed.

Figure 2–2. RA-Position Toolbar — No User Action Required

The RA-Position Toolbar is always displayed and no other display can overlap it. The toolbar can be moved only to the top or bottom of the monitor. If the toolbar is at the top of the monitor, a down-pointing Location Arrow is shown. Left-clicking the down-pointed **Location Arrow** moves the toolbar to the bottom of the monitor and an up-pointing arrow is then displayed. When the toolbar is at the bottom of the monitor, left-clicking the up-pointed **Location Arrow** moves the toolbar to the top of the monitor.

The names of the RA-Position Toolbar buttons are listed in the table below. Each toolbar button serves as a toggle to minimize or maximize each RA-Position view except for the following, which are used to raise or lower the respective view:

- ACL (Aircraft List)
- DEP (Departure)
- GPD (Graphic Plan Display)
- PLANS (Plans Display)
- WIND (Wind Grid Display)

Resting the trackball cursor over a toolbar button provides a trackball cursor selection emphasis box. To display a view that is not currently displayed, left-click on its respective toolbar button. Areas in the toolbar that are not pickable do not receive a trackball cursor selection emphasis box. When the user attempts to pick a non-pickable area, the system displays a trackball **circle X** cursor.

Toolbar Button	Description
Location Arrow	Toolbar position arrow
MORE	Displays/suppresses the second line of the toolbar
ACL	Displays or raises/lowers the Aircraft List view
DEP	Displays or raises/lowers the Departure List view

Toolbar Button	Description
GPD	Displays or raises/lowers the Graphic Plan Display view
PLANS	Displays or raises/lowers the Plans Display view
WIND	Displays or raises/lowers the Wind Grid Display view
WX REPORT	Displays/suppresses the Weather Station Report view
MET	Displays/suppresses the Meteorological Information view.
NOT	Displays/suppresses the NOTAMS view
GI	Displays/suppresses the General Information Messages view
ALTIM SET	Displays/suppresses the Altimeter Settings view
MCA	Displays/suppresses the Message Composition Area view
RA	Displays/suppresses the Response Area view
UA	Displays/suppresses the Update Area view
FEL	Displays/suppresses the Flight Event List view
STATUS	Displays/suppresses the Status view
OUTAGE	Displays/suppresses the Outage view
NON-ADSB	Displays/suppresses the Non-ADSB indicator in the ACL, GPD, and DEP views
MSG WAIT	Accesses a queued message in the UA View

2.2 Displaying System Status

Numbers on the ACL and DEP Toolbar buttons indicate the number of aircraft entries in the Aircraft List and Departure List. The SIG, NOT, and GI buttons have a yellow border and yellow text when there are unacknowledged entries in their view. Numbers on the buttons indicate the number of unacknowledged entries. When no unacknowledged entries exist, the buttons have a white border and white text. If the view contains entries, a check mark appears on the button.

When the PLANS button is coded with gray text, the Plans Display has no entries. Buttons other than STATUS and OUTAGE can have the following backgrounds:

- **Gray**: View is displayed
- **Black**: View is suppressed
- **Yellow**: A failure condition has caused information in the view to be old

The STATUS button can have the following states:

a. **Yellow background and black text**: View is not displayed and the alternate channel indicator has been added or deleted or the current channel mode has been changed. The user changing from one channel to another will not trigger yellow coding.

b. **Black background and white text**: View is not displayed and there are no unacknowledged changes to channel status.

c. **Gray background and white text**: View is displayed.

The OUTAGE button can have the following states:

a. **Red background and white text**: View is not displayed and there is at least one unacknowledged safety critical service status change (Flight Data Service).

b. **Yellow background and black text**: View is not displayed and there is at least one unacknowledged additional status change(s) and no unacknowledged safety critical service status change(s).

c. **Black background and white text**: View is not displayed and there is an acknowledged safety critical or an acknowledged additional status change(s).

d. **Gray background and white text**: View is displayed and there is an entry in the view.

e. **Black background and gray text**: View is not displayed and there is no entry in the view.

The last box on the right side of the toolbar is the **Message Waiting Indicator**. If there is a message waiting in the UA View, MSG WAIT will appear in yellow in the box; otherwise, it will be displayed in gray. The message can be acknowledged by left-clicking in this box. The message can also be acknowledged by pressing the **Message Ack** button on the RA-position keyboard. When a message is acknowledged, the UA View is placed at the top of the RA-Position display and shows the message.

The **Channel Mode Banner** is displayed just below the toolbar menu buttons when the current channel is in **PENDING** or **TEST** mode. It displays the status of the current channel in **red text** on a **black background**.

RA-Position views that have a title bar at the top contain the following pick areas:

a. **View Title**: identifies the view and can be used to move the view.

b. **Menu (M)**: button displays the associated view's View Menu.

c. **Minimize (-) View**: button closes the view.

When data in a view has not been updated due to an outage, the following indicators are used in the title bar of the view:

a. The view title bar has a **yellow background** and **black text**.

b. The word **OLD** is inserted prior to the view title.

2.3 Manipulating Views

Multiple windows can be displayed simultaneously on the RA-Position flat panel display, but the user can only interact with one window at a time. Additionally, only one copy of a particular window can be displayed at any one time. The window that has the trackball cursor within its boundaries is said to have **window focus**. Only windows with focus can be manipulated. A window with focus has a **cyan colored** Window Title Bar. The Title Bar is **gray** if the window does not have focus.

To minimize a display, left-click the Minimize button (**-**) in the Title Bar. To restore a view that has been minimized, left-click on the button representing the display on the RA-Position Toolbar. To move a display, left-click and hold the trackball button anywhere in the Title Bar. Move the display to the desired location and then release the trackball button. To close a view, left-click on a Views Menu button (**M**) and select the **CLOSE** option. Some displays cannot be closed. In such a case the CLOSE option is not available.

A view can be sized by left-clicking and dragging the sides or corners of a view. The term “dragging” means to left-click on an object and hold down the select button while increasing or decreasing the size of the display window. If a view window is displayed at less than its largest size, it can be maximized by left-clicking the Maximize button (□) in the upper-right corner of the Title Bar.

If more than one display is open on the screen, one display may overlap the other. To raise the display in the back to the front of the display, left-click anywhere within the Title Bar of the view window, side edges, or bottom edge. To lower a display so that it is placed at the bottom of the stack of all other currently displayed windows, select the Window Menu Button, then select **Lower** on the resulting menu. Also, when a view is not currently displayed on top, it can be raised or lowered by left-clicking on its icon in the RA-Position Toolbar. Keyboard shortcuts for raising and lowering views are described in Section 16, *Keyboard Shortcuts*.

ERAM windows have a logical default position that allows easy access to all windows. To reset RA-Position views to their default position use the keyboard shortcut procedure described in Section 16.12, Resetting Display Locations and Sizes.

Figure 2–3, Display Controls (DC) View, displays the current volume of the message waiting alarm tone.

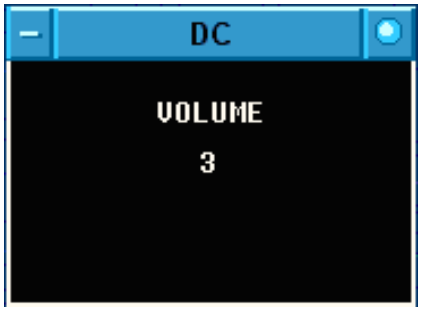


Figure 2–3. Display Controls (DC) View

Use the following steps to set the alarm volume tone **via the keyboard**:

1. Press the **MULTI-FUNC** key and the **up arrow** key. The tone reflecting an increase in the volume sounds and the number in the DC display changes to reflect the alarm volume setting.
2. Press the **MULTI-FUNC** key and the **down arrow** key. The tone reflecting a decrease in the volume sounds and the number in the DC display changes to reflect the alarm volume setting.

Use the following steps to set the alarm volume tone **via the trackball**:

1. Position the trackball cursor on the pick area and click the left (**Select**) trackball button. The tone reflecting a decrease in the volume sounds and the number in the DC display changes to reflect the alarm volume setting.

2. Position the trackball cursor on the pick area and click the middle (**Enter**) trackball button. The tone reflecting an increase in the volume sounds and the number in the DC display changes to reflect the alarm volume setting.

2.4 User Interface Buttons

ERAM introduces a variety of button types that allow the user to navigate through and manipulate views at the RA-Position. These button types include:

a. **Menu buttons**: used to display/suppress a toolbar menu.

b. **Toggle buttons**: used to display/suppress data on the display. Toggle buttons may be selected by left- or middle-clicking the trackball device. If data associated with the toggle button is not displayed, selecting the toggle button displays the data. If data associated with the toggle button is displayed, selecting the toggle button suppresses the data.

c. **Increment/decrement buttons**: used to set the value of an attribute that is associated with the button (for example font size, brightness, and length). To increment a value, the user must use the trackball to middle-click the setting; to decrement a value; the user must use the trackball to left-click the setting.

d. **Command buttons**: used to start the composition of a command. Command buttons toggle between activated and deactivated when selected.

3. AIRCRAFT LIST VIEW

This chapter describes characteristics of the Aircraft List (ACL) View. Major topics are:

- Layout and Characteristics
- Associated Menus
- User Commands

3.1 Layout and Characteristics

Figure 3–1, Aircraft List View, displays flight plan data and conflict notification status for active flight plans. It also provides an interface for:

- trial planning
- accessing plan information
- entering heading, speed, and free-form text data
- accessing the Graphic Plan display
- activating/deactivating altitude restrictions
- changing the schedule and altitude limits for Special Activities Airspace
- holding flights, recording hold instructions and EFC time, and canceling holds
- displaying, acknowledging, and removing point outs
- reading out flight data
- indication of a Traffic Flow Management (TFM) – protected segment of a route
- accessing the TFM Quick View and TFM Reroute Menu

The vertical and horizontal extent of the Aircraft List can be resized. The maximum size for the window is constrained only by the dimensions of the active display surface. The minimum width is the size needed to display all the buttons in the menu bar. The minimum height is the size needed to display one entry.

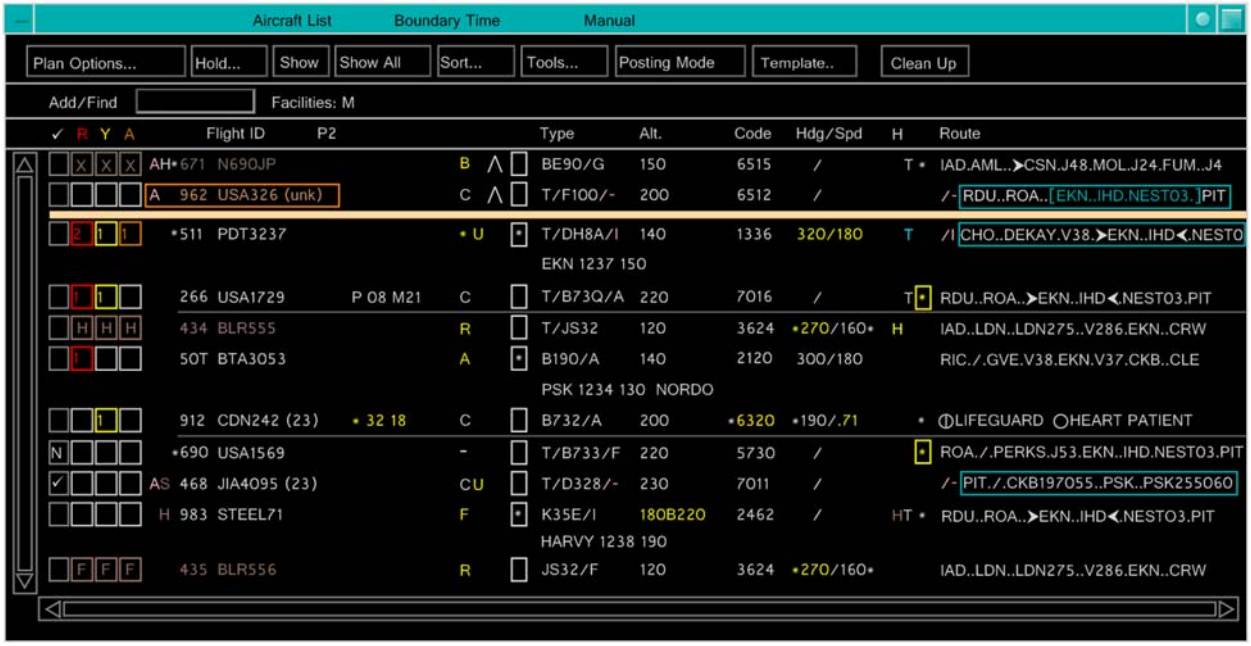


Figure 3–1. Aircraft List View

Components of the Aircraft List include the:

- Title Bar
- Menu Bar
- Main Display Area, including the:
  - — **Add/Find** Input Field
  - — Facilities Field

3.1.1 Title Bar

The title bar of the Aircraft List View is a quick reference that shows the user the title of the view and the sort order and posting mode selected for Aircraft List View entries. The options for the sort order are:

- ACID
- Conflict Status
- Conflict Time
- Destination
- Boundary Time
- Sector–by–sector
- Sector/_____
  - — Sector/ACID

— Sector/Conflict Status

— Sector/Conflict Time

— Sector/Destination

— Sector/Boundary Time

The options for the posting mode are **Automatic** and **Manual**. Additional information on posting mode option and changing posting modes is provided in Section 3.3.6.

3.1.2 Menu Bar

The Aircraft List Menu Bar (refer to Figure 3–2, Menu Bar Buttons) allows the user to access various command options and menus when managing Aircraft List entries. A brief description of each Menu Bar function follows:

a. **Plan Options**: displays the **Plan Options Menu**, which is used to amend a flight plan, enter interim altitude, access previous route data, or specify an action to be taken on the selected Aircraft List entry.

b. **Hold**: displays the **Hold Data Menu**, which is used to enter hold information such as location, direction, turn direction, leg length, and EFC time for the specified entry.

c. **Show**: used to graphically display or remove a selected aircraft's current plan and any alerts assigned to the sector on the Graphic Plan Display.

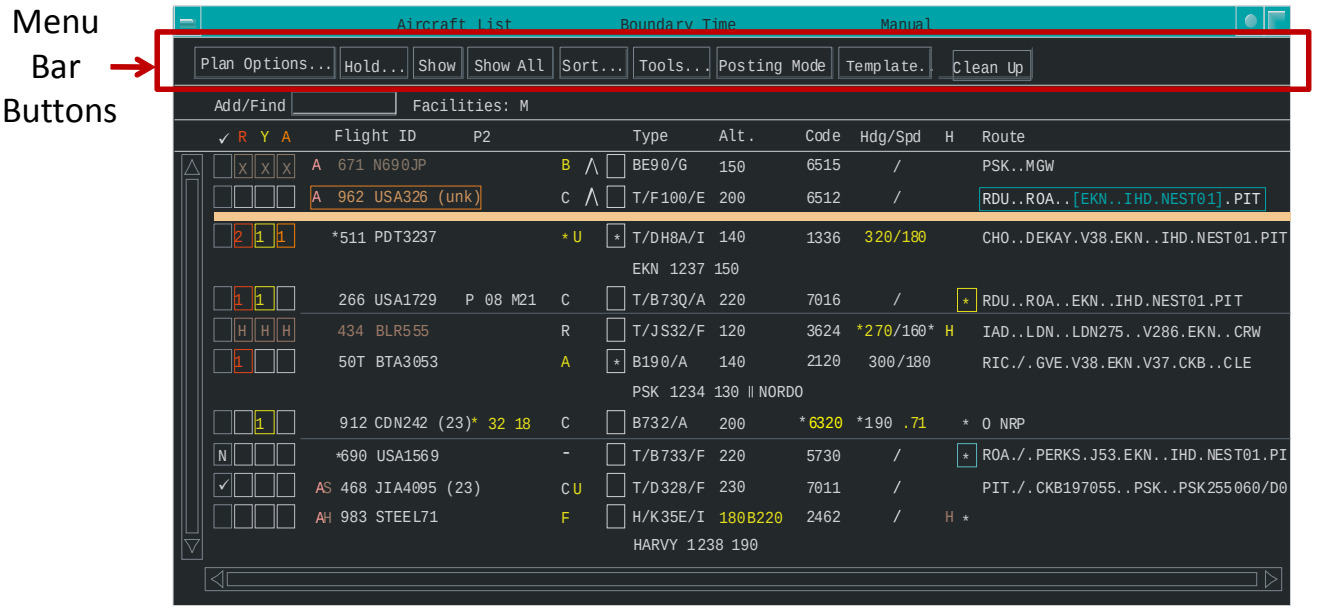


Figure 3–2. Menu Bar Buttons

d. **Show All**: used to graphically display or remove a selected aircraft's current plan and show all alerts assigned to that aircraft on the Graphic Plan Display.

e. **Sort**: displays the **Sort Menu** for the Normal Posting Area. When a sort criterion is selected, the title bar of the Aircraft List is changed accordingly to show the new "sort by" selection.

f. **Tools**: displays the **Tools Menu** used to select restrictions, check the airspace status, and access the Airport Stream Filter Menu.

g. **Posting Mode**: toggles between the automatic and manual posting modes for the Aircraft List. When a posting mode is selected, the title bar changes accordingly.

h. **Template**: opens the Flight Plan Template to create a flight plan (if no entry is selected) or the Amendment Template to amend a flight plan (if an entry is currently selected).

i. **Clean Up**: cleans up the ACL by removing all entries coded gray for deletion.

Each menu bar button has an **active** and **inactive** state. If a button is active, it is selectable and its text is white. If a button is inactive, that menu or option is not available. An inactive button will be displayed in gray text. An ellipses follows the text label of a menu bar button indicates a menu is displayed when the button is selected.

3.1.3 Main Display Area

The Main Display area of the Aircraft List View (Figure 3–3, ACL Main Display Area) contains entries that are displayed in a tabular format based on the sorting criteria and the posting mode selected (refer to Section 3.1.1, Title Bar). The Aircraft List uses several coding techniques to draw the user's attention to a particular entry or one of its components. These coding techniques are used in the alert boxes, flight ID field, and route field of the Aircraft List View. Alerts are color coded in the appropriate color based on the types of alerts: Alert colors and associated alert types are:

a. **Red**: aircraft-to-aircraft high criticality level 1 conflict.

b. **Muted red**: aircraft-to-aircraft high criticality level 2 conflict.

c. **Yellow**: aircraft-to-aircraft low criticality level 1 conflict.

d. **Muted yellow**: aircraft-to-aircraft low criticality level 2 conflict.

e. **Orange**: aircraft-to-airspace conflict.

Coded alert symbols for each Aircraft List entry include the alert box and a numeral in the alert box indicating the total number of alerts of that type.

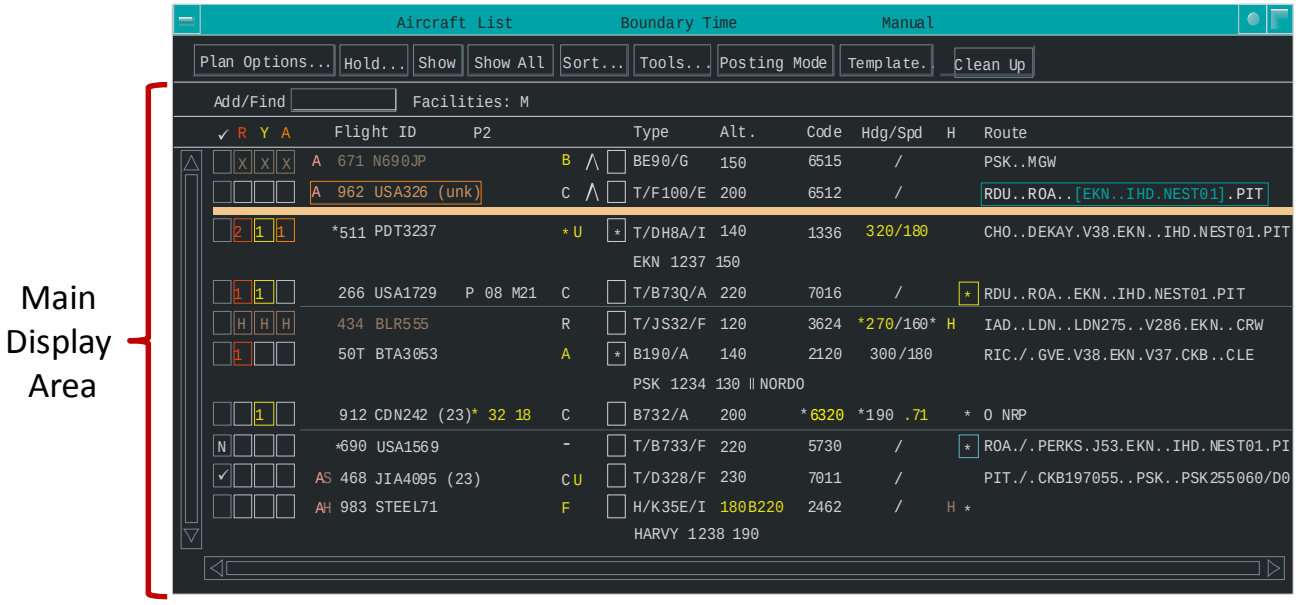


Figure 3–3. ACL Main Display Area

Color coding is used for the flight ID field, for alert boxes, and the route field. The special symbols used in the Aircraft List include a **check mark** and an **asterisk** to indicate that free-form text has been entered on the second line of an aircraft entry. Another special symbol is the **move symbol**, which consists of an arrow head shape (^). The Move symbol is located between the UTM symbol (if present) and the Hot Box. More information is provided on the colors and symbols used in the Aircraft List View in the subsections that follow.

Just above the Main Display area of the Aircraft List View are two fields: the **ADD/Find** and **Facilities** fields. The Facilities field identifies the adapted neighboring facilities that have ERAM communications available. Neighboring facilities that have lost ERAM capability appear in gray. When the user enters an aircraft ID, computer ID, or beacon code in the Add/Find field, the corresponding aircraft appears in the Aircraft List with the flight ID highlighted. The keyboard shortcut for adding/finding an aircraft to/in the ACL View can be found in Section 16.2, Adding/Finding an Entry on the ACL or DL.

The Main Display area is comprised of the following fields/columns:

- Bookkeeping (√)
- Alert boxes
- Flight ID
- Point Out (PO)
- Type
- Altitude (Alt)
- Beacon Code (Code)
- Heading/Speed (Hdg/Speed)
- Hold Data (H) Indicator (when required)

- Traffic Flow Management (TFM) Indicator (aka “T” Indicator), when required
- Route

3.1.3.1 Bookkeeping Column

The Main Display area contains a Bookkeeping column on the far left side of the ACL View (Figure 3–4, Bookkeeping Column). The Bookkeeping column uses a check mark (√) as a header. The Bookkeeping box provides a way for noting an action or indicates the display of a new entry.

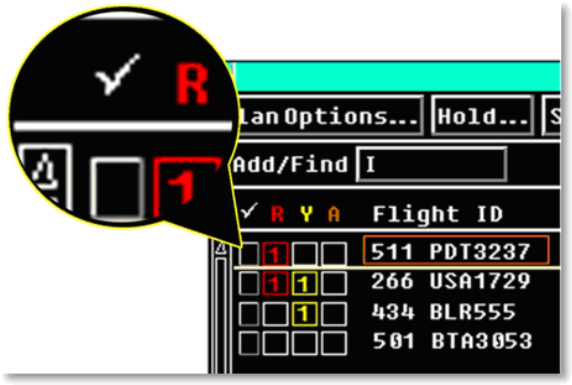


Figure 3–4. Bookkeeping Column

The following items can appear in the Bookkeeping box:

Item	Description
	An “**N**” in the Bookkeeping box indicates a new entry in the Aircraft List. a. In the Normal Posting Area, the N is removed when the user interacts with the entry. b. In the Manual Posting Area, the N is removed when the user left-clicks the entry or moves the entry to the Special Posting Area.
	A **blank** box indicates that the entry has been acknowledged or interacted with. The user can toggle between this blank and the check mark.
	A **check mark** in the Bookkeeping box acts as a reminder. The user can click on the blank Bookkeeping box to add the check mark to the Bookkeeping box.
	A “**K**” in the Bookkeeping box indicates that the entry in the field has been kept by the user.

3.1.3.2 Alert Boxes and Flight ID

Adjacent to the Bookkeeping Box are the alert boxes (Figure 3–5, Alert Boxes) for each Aircraft List entry. Alerts are assigned to the sector with color, numbers, and letters. Alerts are color coded in the appropriate color based on the type of alert. There are three alert types:

- Red (**R**)
- Yellow (**Y**)
- Airspace (**A**)

Figure 3–5. Alert Boxes

Left-clicking on an alert box activates the Show command and the Show All buttons. It also selects the alert box and activates the Show Menu bar button. Middle-clicking on the alert box displays the Graphic Plan Display (GPD) and performs the Show ALL command for the alert type. Right-clicking the alert box displays the Conflict Acknowledge Menu.

When a red alert appears in an entry's Red alert box, it indicates that the entry's aircraft is predicted to come within 5 NM of one or more aircraft. This alert type is depicted with the border of the alert box changing its color to **red** and the box being filled with a **red number**. A number in the red alert box indicates the number of aircraft-to-aircraft conflicts of 5 NM or less for that particular entry in this sector only. A **muted** (dim) red color indicates the prediction of an aircraft-to-aircraft conflict of 5 NM or less that is going to occur during a portion of the flight where an altitude change is going to be made, but the aircraft has not been cleared for this maneuver. For information on ERAM CA processing, refer to Section 1.2.3, Conflict Alert Processing.

When a yellow alert appears in an entry's Yellow alert box, it indicates that the aircraft is predicted to come between 5 and 12 NM of one or more aircraft. This alert type is depicted with the border of the box turning **yellow** and the box being filled with a **yellow number**. A number in the yellow alert box indicates the number of aircraft-to-aircraft conflicts between 5 and 12 NM for that particular entry. A **muted** yellow color in the alert box indicates that an aircraft-to-aircraft conflict between 5 and 12 NM is going to occur during a portion of the flight where an altitude change is going to be made, but the aircraft has not been cleared for this maneuver.

When an orange alert appears in an entry's Airspace alert box, it indicates a predicted aircraft-to-airspace violation. This means that the aircraft is predicted to come within 3 NM of active or scheduled Special Activity Airspace. This alert type is depicted with the border of the box turning **orange** and the box being

filled with an **orange number**. A number in the orange alert box indicates the number of aircraft-to-aircraft alerts for that particular entry.

A **brown X**, in all three alert boxes in conjunction with a brown Flight ID signifies that the Aircraft List entry is not being probed by the system. A **brown S**, in all three alert boxes signifies that a stop probe is in effect for the flight. This will be displayed if a stop probe is initiated for a present position or if the flight has reached the desired fix for the stop probe. A **brown H**, in all three alert boxes signifies that a Hold is in effect for the flight. A **brown F**, in all three alert boxes signifies that a flight is Commanded Frozen.

Immediately to the right of the ACL alert boxes is the non-**Automated Dependant Surveillance-Broadcast (ADS-B)** indicator. The non-ADS-B indicator consists of a coral **A** (Refer to Figure 3–1, Aircraft List View), and is displayed when the track indicates that the flight is not ADS-B supported and that the **NON-ADSB** button in the RA-Position toolbar is currently selected. The column containing the non-ADS-B indicator may be toggled opened/closed via the NON-ADSB button on the Toolbar. The ADS-B column is one character in width when it is open. When closed, the ADS-B column is completely removed. The columns to the right of the ADS-B column shift to the left when the ADS-B column is closed, and shift to the right when it is opened.

Immediately to the right of the non-ADS-B indicator is the Future Hold/Stop Probe indicator (Figure 3–6, Future Hold/Stop Probe Indicator). When the non-ADS-B indicator is not displayed, the Future Hold/Stop Probe Indicator is immediately to the right of the ACL View alert boxes. It indicates that the controller/user has initiated a Hold or Stop Probe for a flight at a future fix via the Stop Probe Menu. The Stop Probe Menu is accessed via the Plan Options Menu (see Section 3.2.1, Plan Options Menu). The purpose of the Stop Probe Menu is to provide the user with a method for suspending alerts on a specified flight at its current location or at selected fix. The user may create a Stop Probe message from the Aircraft List. Entry of the message causes a flight plan to stop being probed for problems beginning at the user-specified fix. This command is not eligible if a current or future Hold is in effect for the flight or if the flight is Commanded Frozen.

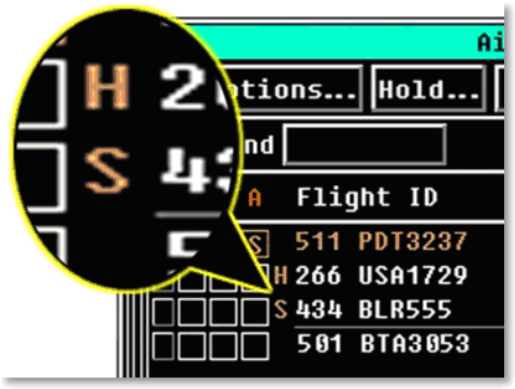


Figure 3–6. Future Hold/Stop Probe Indicator

An **S** indicates a Stop Probe has been entered for a flight to take effect at a downstream fix. An **H** indicates a Hold has been entered for a flight to take effect at a downstream fix. When the flight reaches the specified fix, the Future Hold/Stop Probe indicator is removed and the appropriate coding is displayed for the Future Hold/Stop Probe in the alert boxes.

To the right of the alert boxes is the **Flight ID field**. The Flight ID field indicates the CID and call sign for each Aircraft List View entry.

3.1.3.3 Point Out Indicator Field

The Aircraft List provides indicators for Point Out (PO) entries. This allows the controller to display PO information. When a controller initiates a point out through a system entry, an indicator (**P** or *****), as shown in Figure 3–7, Point Out Field, will be added to the ACL at the initiating sector. The PO indicator will identify the sector in the initiating controller's facility or the facility and sector of the PO recipient.

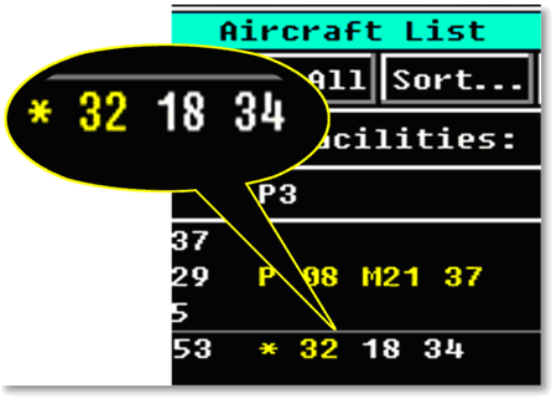


Figure 3–7. Point Out Field

The PO indicator column can expand to show up to five point outs. Figure 3–7 shows only three point outs as indicated by the P3 in the PO indicator field. The header for the PO indicator field varies depending on the situation:

a. **PA**: the PO indicator field is in automatic mode meaning that the column will automatically resize to display up to five point outs.

b. **P0**: the PO indicator column is closed whether or not data exists for this field.

c. **P1 – P5**: indicates the maximum number of point outs that the field can display.

The column will expand accordingly depending on which PO header is selected. The PO header values can be increased or decreased by left-clicking to decrease and middle-clicking to increase the indicator field. If the PO indicator has more than five point outs, the oldest point out is deleted and the new point out sector ID is displayed in the right most position.

If the letter **P** appears before a PO entry, the number of entries equals to, or is less than, the column field setting. If an asterisk appears before a PO entry, the number of PO entries exceeds the column field setting. Increasing the column size displays the additional point outs and changes the (*) to **P**.

PO indicators can be yellow or white. When a point out is initiated, the PO entry appears in yellow. A yellow entry can be changed to white by right-clicking on it.

P or P	Indicates that all point outs for the entry are displayed.
* or *	Indicates that there are more point outs for the entry than are being displayed.

08 or 08	Indicates the sector in controller's facility that received the point out.
M21 or M21	Indicates the facility and sector that received the point out.

Left-clicking the PO field decreases the number of point outs displayed on the ACL. Middle-clicking increases the number of point outs displayed on the ACL. If yellow coding is applied to the point out, right-clicking it will remove the yellow coding. If the PO indicator is white, right-clicking it removes the PO indicator.

A yellow **U** to the right of the PO indicator field indicates a UTM shown in Figure 3–8, UTM Indicator Field. The **U** appears automatically to indicate the first occurrence of a UTM, and expands into a three-character width column (shifting all other columns to the right). When all UTM indicators have been removed, the three-character UTM column is removed (shifting all columns that are to the right of the UTM column back to the left). The UTM column does contain a header. It continues to be displayed while there is at least one UTM indicator. When all Aircraft List entries with the UTM indicator are removed from the Aircraft List, the UTM Field column is automatically collapsed.

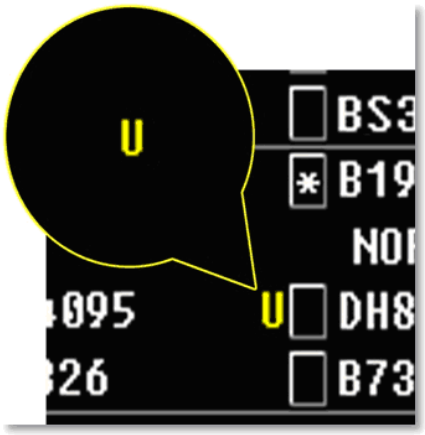


Figure 3–8. UTM Indicator Field

The UTM (U) indicator changes to white after it is acknowledged with a right-click. Left-clicking the UTM indicator displays the UTM Readout list. Right-clicking the UTM indicator removes the yellow coding from the UTM indicator.

NOTE: An RF message can be used to resend data. However, this will not remove the UTM indicator from the display.

The **Display Coordination Column** located immediately after the PO indicator field is shown in Figure 3–9, Coordination Annotations Column. This column has no header and is blank if there are no coordination annotations for an entry. The column can be displayed or suppressed using the Display Coordination option in the Options Menu, which is available from the Tools Menu. Display Coordination Column options are displayed only when the Options Menu is accessed from the Aircraft List.

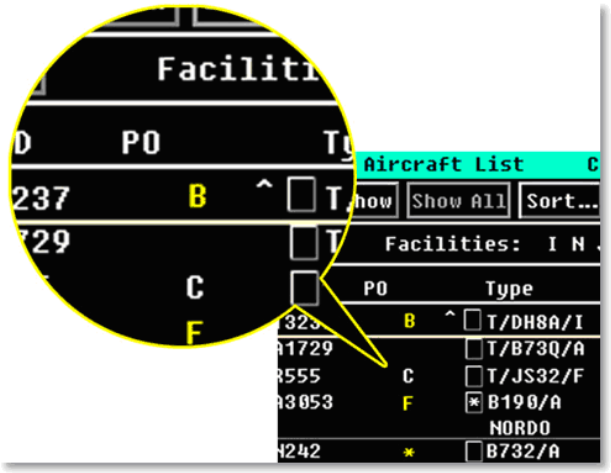


Figure 3–9. Coordination Annotations Column

Left-clicking the Coordination Column displays the Coordination Annotation Menu. The Coordination Annotation Menu allows controllers to enter coordination annotations. Components of the Coordination Menu are:

a. **List of fixes**: up to 20 fixes and estimated fix times on the aircraft's route may be listed. Fixes labeled EXIT indicate an exit from a center sector into an approach control (the number next to an EXIT fix indicates the fix posting area of the approach control). Fixes labeled ZEXIT indicate an exit from a center sector into another center. All EXIT fixes are coded BLUE. Left-clicking on any of the fixes populates the Proposed Fix/Time input box.

b. **Selection boxes**: four selection boxes; Fix/Time, Altitude, Beacon Code, and Route are used to indicate which information is to be coordinated or deleted.

c. **Proposed column**: input boxes located beneath this column are used to enter changes for a coordinated entry.

d. **Coordinated column**: shows information that is currently coordinated for a particular entry.

e. **Coordinate button**: will be gray if there are no items selected to coordinate. Once a selection is made, click this button to indicate the coordination has been completed.

f. **Delete button**: will be gray if there are no items selected. Once a selection is made, click this button to delete the selected data.

g. **Exit button**: closes the menu without making any changes.

When data is entered into the Coordination Annotation Menu, a character appears in the Coordination Annotations column of the Aircraft List. Coordinated data for fix/time, altitude, beacon codes, and route is checked for consistency by the system using the following coding:

a. White C: appears when a coordination annotation has been entered for the flight and the coordinated data matches flight plan data.

b. Yellow F: indicates the coordinated fix is no longer on the projected route of flight.

c. Yellow T: indicates the coordinated time differs from the projected time at the fix by more than 3 minutes.

d. Yellow A: indicates the coordinated altitude does not correspond to the current assigned altitude.

e. Yellow B: indicates the coordinated beacon code does not correspond to the current assigned beacon code.

f. Yellow R: indicates the coordinated route does not correspond to the current route.

g. Yellow *: appears in the field when more than one coordination annotation does not correspond to current flight data.

3.1.3.4 Type Field

The **Type** field appears to the right of the Hotbox as shown in Figure 3–10, Type/Equipment Field. It indicates an aircraft's prefix, aircraft type, and equipment suffix. Left-clicking the field selects the Type Field and activates the Plan Options, Hold, Show, and Show All menu bar buttons if not already activated. The Type field can be contracted to hide Type related information.

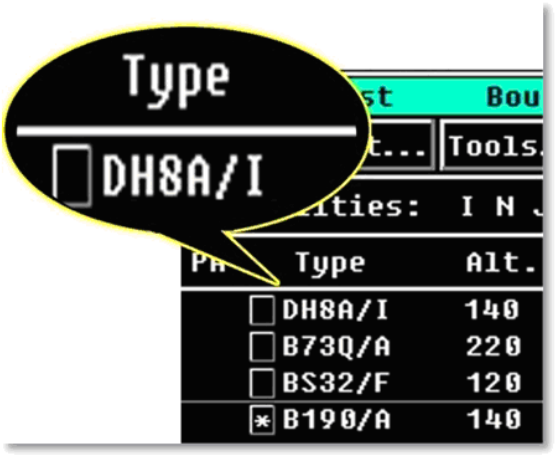


Figure 3–10. Type/Equipment Field

Each entry in the Aircraft List can be expanded an additional row (shifting all entries downward one row) to add free-form text. The free-form text input box starts under the Type/Equip column and is up to 70 characters in length. Figure 3–11, Example of Free-Form Text, shows an example of the free-form text area. Note that the asterisk is present and remains until the text is deleted. The user can input text when the I cursor is present and the cursor is within the lateral limits of the Aircraft List.

Figure 3–11. Example of Free-Form Text

The **Hotbox** shown in Figure 3–12, Hotbox, is located before the Type field for each entry. There are three actions that can be initiated from the Hotbox:

1. **Left-clicking** on the Hotbox opens and closes the free-text typing area, which is shown as a second line under the Aircraft List entry. From within the free form text area, the user can edit, create, and delete free form text for a particular list entry.

2. **Middle-clicking** the Hotbox sends that particular Aircraft List Entry to and from the Special Posting Area of the Aircraft List from the Manual or Normal Posting Area or from the Special Posting Area to the Normal Posting Area.
3. **Right-clicking** the Hotbox highlights the Aircraft List entry.

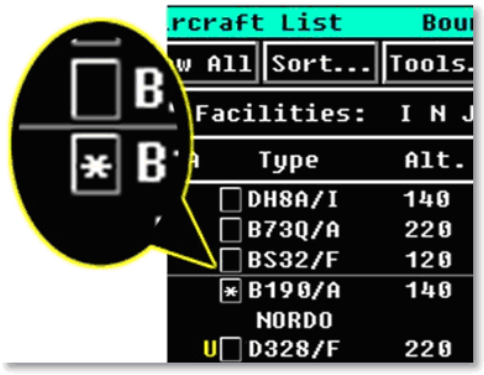


Figure 3–12. Hotbox

3.1.3.5 Altitude Field

The purpose of the Altitude Field is to provide the user with a method for creating a trial plan, amending a flight plan assigned altitude, or for entering an interim altitude message by selecting an altitude value from the menu options or by typing an altitude in the typing box. Altitude field descriptions are provided in Table 3–1, Aircraft List Altitude Fields . Left-clicking on the field displays the Altitude Menu. The Altitude Menu may also be accessed through the **Plan Options** Menu (refer to Section 3.2.1). If IAFDOF is in Automatic mode, a right-click removes the coding (the altitude changes from yellow to white). If IAFDOF is in Manual mode, a right-click cycles the coding from white to yellow to mustard to white, etc. Figure 3–13, Altitude Field, shows the aircraft entry's assigned altitude, interim altitude, block altitude, or VFR indicator. Table 3–1 lists the Altitude fields.

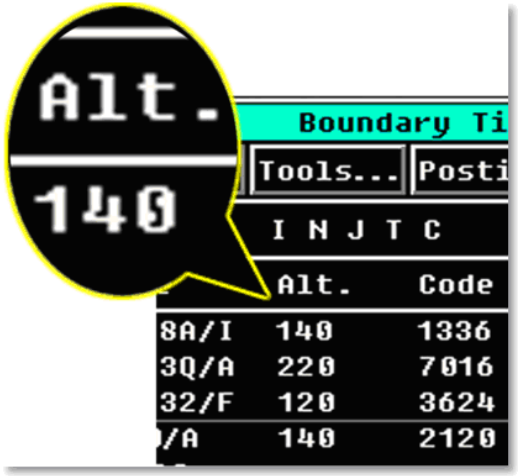


Figure 3–13. Altitude Field

Table 3–1. Aircraft List Altitude Fields

Alt Field	Description
	If the altitude text is yellow, it indicates that when departing the user's airspace, an aircraft will be at an Inappropriate Altitude for Direction of Flight (IAFDOF).
	Flights with block altitudes will also be coded with IAFDOF coding.
	If there is a coral colored box around the altitude, it indicates that the aircraft is not equipped for RVSM.

3.1.3.6 Beacon Code Field

The Beacon Code (i.e., Code) field indicates the beacon code setting for each entry and is located to the right of the Altitude Field. Left-clicking the Beacon Code Field (Figure 3–14, Beacon Code Field) selects the Beacon Code Field and activates the Plan Options, Hold, Show, and Show All Menu bar buttons if not already activated. When a code has not been assigned, the field is blank. This field can be contracted to hide the code information. The field is represented by a C when contracted.

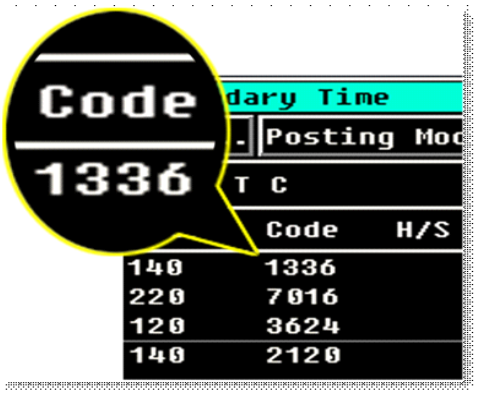


Figure 3–14. Beacon Code Field

NOTE: External beacon codes are prefixed with an **E**. The beacon code field and the **E** (if it exists) are displayed in white in ERAM. The beacon codes used to be displayed in yellow in URET for duplicate beacon code.

In some cases, internally assigned and externally assigned beacon codes exist for the same aircraft. When this occurs, a white asterisk (*) appears to the left of the beacon code and the internal beacon code appears in yellow with the prefix **E**. The asterisk can be used to toggle between the externally assigned beacon code (in white) and the internally assigned code (in yellow).

The external beacon code will be removed automatically if the external beacon code becomes available at handoff or the system observes the aircraft squawking the internal code.

If the Beacon Code Field is suppressed and an entry has both an internally assigned and an externally assigned beacon code, the asterisk (*) appears to the left of the column header shown in Figure 3–15,

Multiple Beacon Codes. Left-clicking the Beacon Code field toggles between the internal and external beacon codes.

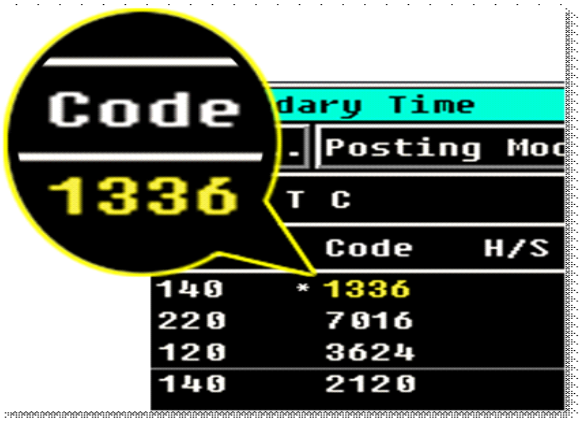


Figure 3–15. Multiple Beacon Codes

3.1.3.7 Heading/Speed Column

The **Heading/Speed** column is, at a minimum, three characters in width when it is closed with **H/S** as the column heading. Upon user action to display the Heading/Speed column, the ACL fields to the right of the Heading/Speed field shift to the right as needed. When the column is closed, the fields to the right of the Heading/Speed shift to the left. The user can close the Heading/Speed column whether or not it contains data. When the Heading/Speed column is open, the slash that separates the two fields is displayed for each entry. The slash is displayed regardless of whether the heading or speed fields contain data.

Left-clicking the Heading/Speed Field expands or Contracts the Heading/Speed column when left-clicking on the column header Opens Heading and Speed menus. Left-clicking on the asterisk will toggle between the system and Scratchpad data on Heading or Speed. Middle-clicking the Heading/Speed Field forwards Scratchpad data to the system. Right-clicking the Heading/Speed Field deletes Heading/Speed value. The Heading/Speed column in Figure 3–16, Heading/Speed Field, displays the aircraft's heading and speed data, if any has been entered by the sector controller.

The sector controller can enter system data (white) or the Scratchpad data (yellow). The Scratchpad heading and speed data do not pass to the system. This feature allows the user to make notes electronically. Scratchpad data is not passed at hand off.

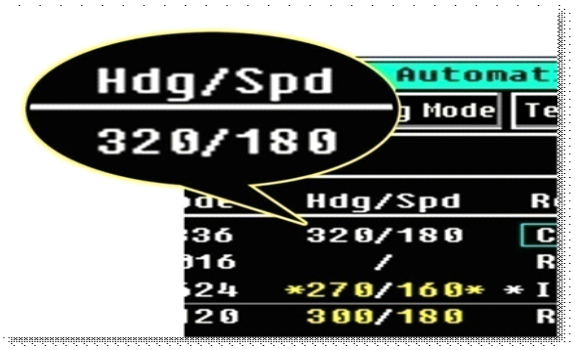


Figure 3–16. Heading/Speed Field

This column is collapsible; the column width can be reduced when there is no heading or speed data present in the field for any aircraft. The example shows the field open. An asterisk (*) prior to the Heading value or after the Speed value signifies that both system and Scratchpad data are available for that field. There are nine possible column headings for the Heading / Speed:

1. **Hdg / Spd**: both columns are open.
2. **Hdg / S**: Heading column is open; Speed column is closed with no data in the Speed column.
3. **H / Spd**: Heading column is closed with no data; Speed column is open.
4. **H / S**: both columns are closed without any data in the fields.
5. ***H / S***: Heading and Speed columns are closed, but data is present in both columns.
6. ***H / S**: both columns are closed, but data is present in the Heading column.
7. **H / S***: both columns are closed, but data is present in the Speed column.
8. ***H / Spd**: Heading column is closed with data present; Speed column is open.
9. **Hdg / S***: Heading column is open; Speed column is closed with data present.

Heading data (System or Scratchpad) can be entered in three ways:

1. Magnetic heading in degrees.
2. Turn right or left a specific number of degrees.
3. PH to indicate present heading.

Speed data (System or Scratchpad) can be entered in knots or Mach values. Other ways that Speed can be entered are listed in Table 3–2, Aircraft List Speed Entry.

Table 3–2. Aircraft List Speed Entry

Entry	Indication
+	Maintain best forward speed
-	Reduce speed as much as possible
180+	Three digits with a (+) sign, which means maintain indicated speed or greater
180-	Three digits with a (-) sign which means maintain indicated speed or less

Table 3–2. Aircraft List Speed Entry (Continued)

Entry	Indication
+20	Two digits with a + / - sign to indicate to increase speed by the indicated number of knots
.71, 71, M71	Mach speeds
M71 +/-	+ / - sign following a mach speed to indicate to maintain indicated speed or greater or less
∠	GIM-S Indicator: coded green when an Accepted GIM-S speed exists. Grayed out when an Accepted GIM_S speed becomes “invalid”.

When there is an Accepted GIM-S speed, the GIM-S indicator is displayed (Figure 3–17). There is 1-character spacing between the slant and the GIM-S indicator. When an Accepted GIM-S speed becomes “invalid” (e.g., a new proposed speed is received at the sector position), the GIM-S stale indicator is displayed (Figure 3–18).

Figure 3–17. ACL: Accepted GIM-S Speed Exists

Figure 3–18. ACL: GIM-S Stale Indicator

3.1.3.8 Hold Data Indicator Field

To the right of the Heading/Speed field is the **Hold Data Indicator** field (Figure 3–19). The Hold Data field collapses automatically when there are no entries in the column. The column is opened automatically when a flight is placed in hold. When this condition occurs, a **brown H** (Hold Data Indicator) is displayed in the Hold Data Indicator field in the associated ACL entry and an **H** is displayed in the field header. The **H** in the Hold Data Indicator field is displayed with **yellow** coding when the clock time reaches an adapted number of minutes prior to the EFC time, if there is an EFC time for the flight.

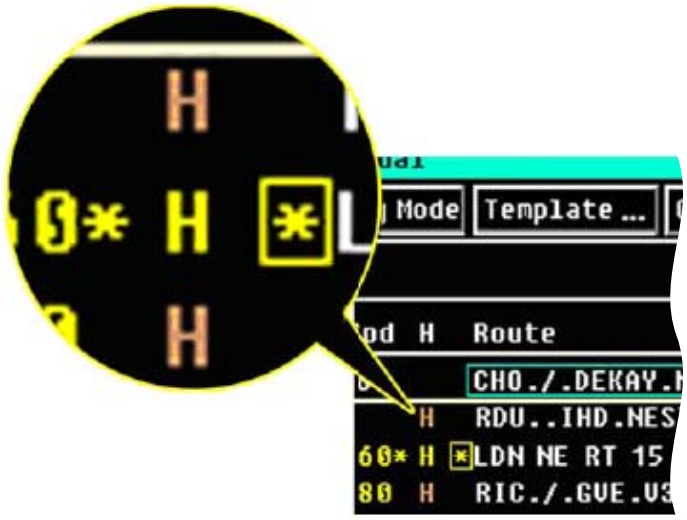


Figure 3–19. Hold Data Indicator Field

Hold Data includes the hold location, orientation, and turn direction, as well as leg lengths and the EFC time for a flight. Left-clicking the **Hold Data Field** displays the Hold Data in the Remarks Field or displays the Hold Data Menu if Hold Data does not already exist for that entry. Middle-clicking the **Hold Data Field** displays the Hold Data Menu. Right-clicking the Hold Data Indicator displays the Cancel Hold Confirmation Menu.

3.1.3.9 Traffic Flow Management Indicator Field

The TFM Indicator field is displayed to the left of the Route field, between the Hold (H) column and the Remarks (*) column of the ACL view (Refer to Figure 3–20, ACL View – TFM Indicator Field). The TFM Indicator field opens automatically when the flight has a TFM-protected segment of the route or a pending reroute notification. The field collapses automatically when there are no entries in the column.

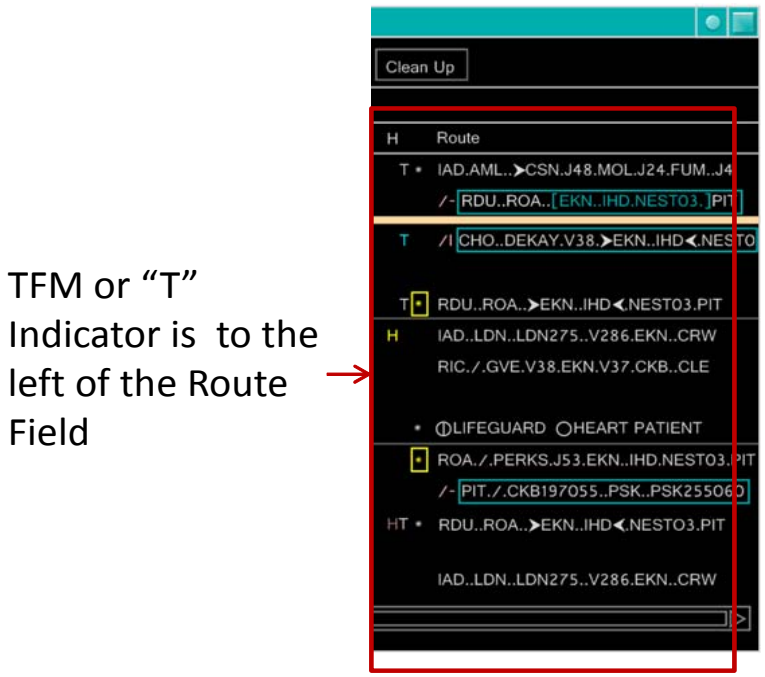


Figure 3–20. ACL View – TFM Indicator Field

When the route of flight contains a TFM-protected segment, a white “T” (not selectable) is displayed in the TFM Indicator field. When a pending reroute notification is received, a cyan “T” (selectable) is displayed in the TFM Indicator field to all sectors within a facility. The cyan “T” provides the capability to access the TFM Quick View with a left or middle pick. The “T” is removed either when:

- The TFM applied reroute or pending reroute is cancelled by Traffic Management Unit (TMU).
- The TFM pending reroute is applied and does not contain a protected segment.
- The TFM pending reroute is rejected by the controller.
- An amendment is made by the controller that causes removal of the entire TFM-protected segment and there is no pending reroute.
- The flight progresses beyond the end point of the TFM-protected segment and there is no pending reroute.

3.1.3.10 Route Field

The Route field (Figure 3–21, ACL View – Route Field) may display Route data or Hold data (holding fix and optionally, directions/turns/leg lengths and/or EFC time) that has been entered by the user, or flight plan Remarks/Reason for Special Handling. The user may toggle between the display of the Route data, Hold data, and Remarks/Reason for Special Handling by left-clicking the **Remarks indicator (*)** located to the left of the Route field. When remarks are displayed on the Aircraft List, both the Remarks data and Special Handling data is displayed (Remarks data followed by Special Handling data).

Figure 3–21. ACL View – Route Field

The Route field is coded with a cyan box under the following conditions:

a. A cyan box around the entire route field with white brackets around three white “Xs”. This is an indication that the system is unable to convert the route of flight past this point because of a logic error in the portion of the route within the AOR. User action is required to correct this.

b. A cyan box around the entire route field combined with cyan brackets around a cyan embedded route indicates that a preferential route needs to be issued to the aircraft.

When a route, that is currently displayed in the ACL view, contains a TFM-protected segment the route will contain Protected Segment Indicator(s). A Protected Segment Indicator consists of a white chevron pointing to the right preceding the beginning point of the TFM-protected segment of the route; a white chevron pointing to the left following the end point of the TFM-protected segment of the route.

Left-clicking in the **Route** field displays the Route Menu. Middle-clicking in the **Route** field displays/removes the Flight Plan Readout. When an **embedded** route or an **adapted route** is right-clicked, the Send/Acknowledge Route prompt is displayed.

Within the Route field, sub-fields consisting of an adapted route or an embedded change in the route are color-coded in cyan with cyan brackets around the sub-field. If there is not a pending reroute, the user may acknowledge the adapted routes (Adapted Departure Route (ADR), AARs, and Adapted Departure Arrival Route (ADAR)) or the embedded route strings by selecting within the sub-field using the cursor. A pending reroute has priority handling over other action coding. The cyan box that surrounds the entire route field continues to be displayed until all cyan brackets within the route have been removed. The cyan box that surrounds the route may remain displayed after the user has acknowledged the sub-field if the flight is ineligible for the route.

When there is an adapted route and associated clearance text, both will be bracketed with cyan brackets and be coded with cyan text. However, dwell emphasis will be applied to the combined sub-fields as if it were a single field since acknowledging one acknowledges the other. When the combined adapted

route/clearance text change is acknowledged (and the acknowledgement is accepted), the cyan coding and cyan brackets will be removed from the adapted route sub-field and the cyan coding will be removed from the clearance text sub-field but white brackets will remain. The cyan box coding that surrounds the entire field is removed if there is no other action requiring acknowledgement. White brackets around three white “?s” is an indication that the system is unable to convert the route of flight past this point because of a logic error in the portion of the route outside the AOR.

NOTE: The controller is not able to acknowledge adapted or embedded route strings until the pending reroute is applied or rejected.

NOTE: The protected segment will override preferential routing.

ACL entries for flights that are not eligible for the cyan coded text, cyan brackets, and Route Action Notification box surrounding the route string are displayed with muted (gray-coded) text and muted brackets. This applies for ADRs, ADARs, and AARs that have alphanumerics that are in either Field 10 format or not in Field 10 format. Muted adapted route coding contains the same textual information as the coding for an eligible flight, but the text is muted (gray) and there is no “route action notification” coding (i.e., no cyan box surrounding the displayed route).

Embedded routes can include a Preferential Arrival Route, a Preferential Departure Route, or a Preferential Departure and Arrival Route. ATC Preferred Route (APR) notification will be displayed for VFR aircraft and for IFR aircraft. A blue departure fix indicates that an aircraft is eligible for an APR. A **yellow asterisk** (*) **and box** located to the left of the Route Field indicates that an entry has remarks that have not yet been viewed. A **white asterisk** (*) indicates remarks have already been viewed.

Figure 3–22. Route Field (Deleted)

The general route action notification coding (i.e. cyan box) also appears for Flight Ineligible for Route (FIFR) coding, along with a coral equipment qualifier and coral slant preceding the equipment qualifier in the *Aircraft Type* field, and a coral equipment qualifier that is displayed in the first three character positions of the route field. If the flight does not have an equipment qualifier, a dash (–) is displayed in place of the equipment qualifier when the flight is ineligible for route.

The user may acknowledge the FIFR coding by positioning the tcursor on one of the coded equipment qualifiers in either the *Aircraft Type* field or the *Route* field and then clicking the right trackball button. When FIFR coding is acknowledged, the coral coding on the equipment qualifiers is removed (equipment qualifiers turn white). The route action notification box is also removed if the only reason for the box is that the flight is ineligible for the route. If the route action notification is displayed due to another condition, it is not removed from display. To remove the FIFR coding, the flight must be rerouted to a route for which the flight is eligible. The coding is removed when the flight passes the last element on the route.

Figure 3–23. Remarks Indicator (Deleted)

To display Remarks/Reason for Special Handling when they are not currently displayed, the user selects the Remarks indicator (Figure 3–24). If Remarks/Reason for Special Handling is currently displayed when the Remarks Indicator is selected, then the Route will be displayed in the field. **Intra** and **inter-facility** remarks as well as **ICAO Reason for Special Handling** remarks can be displayed in the route portion of an ACL entry. The Remarks Indicator alerts the user that these remarks are present.

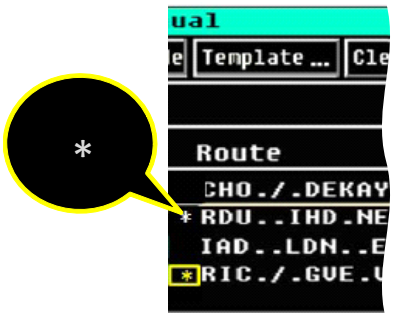


Figure 3–24. Remarks Indicator

The format of the Route field when Remarks and Special Handling are displayed is as follows: Intrafacility Remarks (overcast weather symbol (⊕) followed by intrafacility remarks text, followed by a space), followed by special handling (scattered weather symbol (⌀) followed by the text from the 'STS/' field, followed by a space), and followed by Interfacility Remarks (clear weather symbol (◯) followed by interfacility remarks text). The Traffic Management Initiative (TMI) ID, consisting of the TMI ID label and the TMI ID data, is displayed in the Interfacility Remarks field. The TMI ID label ("TMI") is separated from the TMI data by a space. The TMI ID, if present, is displayed immediately after the clear weather symbol. If there are additional Interfacility Remarks, they are separated from the TMI ID data by a space.

Examples:

Field 11	TMI ID	Field 918g	Displayed Route Field
⊕AAA ◯BBB	JFK22	STS/CCC	⊕AAA ⌀CCC ◯TMI JFK22 BBB
⊕AAA ◯	JFK22	STS/CCC	⊕AAA ⌀CCC◯TMI JFK22
⊕AAA		STS/CCC	⊕AAA◯BBB
◯BBB		STS/CCC	⌀CCC◯BBB
⊕AAA ◯BBB			⊕AAA◯BBB
⊕AAA			⊕AAA
◯BBB			◯BBB
	JFK22		◯TMI JFK22
		STS/CCC	⌀CCC

3.2 Associated Menus

The following menus may be accessed from the Aircraft List View:

- Plan Options Menu
- Hold Data Menu

- Sort Menu
- Tools Menu
- Flight Plan Template
- Amendment Template
- Equipment Template
- Previous Route Menu

A description of each menu is provided in the following subsections.

3.2.1 Plan Options Menu

Figure 3–25, Plan Options Menu, provides the user with options to create a trial plan or amend a flight plan or enter an interim altitude. The menu is also used to specify an immediate action (e.g. Keep or Delete) to be taken on an Aircraft List entry. The Plan Options Menu is displayed when an Aircraft List entry is selected and the Plan Options Menu bar button is left-clicked.

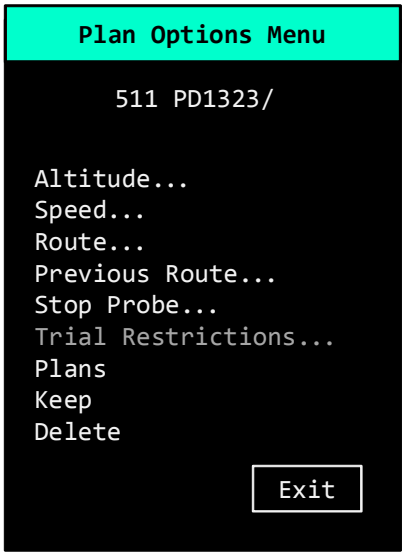


Figure 3–25. Plan Options Menu

The corresponding CID and the Flight ID for a selected entry appear at the top of the Plan Options Menu followed by nine menu options. These options may be active or inactive for a selected entry, depending on the entry's current scenario. An ellipsis **(...)** following the text of a menu option indicates that the associated submenu is displayed when the option is selected. The absence of an ellipsis indicates that the associated action is triggered immediately when the option is selected. A brief description of each menu option follows.

1. **Altitude...**:displays the Altitude menu and provides the capability to create a trial plan, or amend an assigned or interim altitude for an aircraft (see Section 3.2.1.1, Altitude Menu, for details).
2. **Speed...**: displays the Speed Menu and provides the capability to create a trial plan for an aircraft by selecting a speed from the Speed Menu options or by manually typing in a speed value.

3. **Route...**: displays the Route Menu and provides the capability to create a trial plan or amend a route for a flight plan.
4. **Previous Route...**:displays the Previous Route Menu showing the previous route along with the associated TFM protected area, if any, and provides the capability to apply the previous route to the flight plan.
5. **Stop Probe...**: displays the Stop Probe Menu. The Stop Probe option is replaced with **Resume Probe** if the probe for the selected flight is already stopped. These menu options provide the user with the capability to suspend conflict alerts on a specific flight at its current location or at a selected fix. The selection for Stop Probe is grayed out if the flight is Automated Problem Detection (APD) ineligible, if current or future Hold is in effect for the flight, or if the flight is Commanded Frozen.
6. **Trial Restrictions...**: displays the Trial Restrictions Menu and provides the capability to activate or deactivate adapted restrictions on a trial basis for a specific entry in the Aircraft List.
7. **Plans**: displays the Plans Display with the Current Plan of the selected flight.
8. **Keep**: retains the selected aircraft entry on the Aircraft List.
9. **Delete**: deletes the selected Aircraft List entry if there are no red or yellow alerts associated with the entry.

The Plan Options Menu cannot be resized. The nominal size is large enough to display all of the fields ad buttons. To exit the menu, without selecting an option, the **EXIT** button is left-clicked.

Details of the menus associated with the Plan Options Menu are provided in the following subsections.

3.2.1.1 Altitude Menu

Figure 3–26, Plan Options Altitude Menu, provides the user with a method for creating a trial plan, amending a flight plan assigned altitude, or for entering an interim altitude message by selecting an altitude value from the menu options or by typing an altitude in the typing box. The Altitude Menu may be accessed through the Plan Options Menu, or by selecting the Altitude field in the Aircraft List.

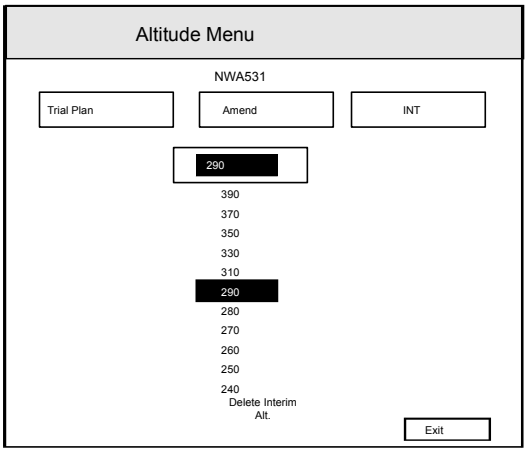


Figure 3–26. Plan Options Altitude Menu

The Altitude Menu cannot be resized. The nominal, maximum, and minimum sizes are the same size. The nominal size is large enough to display all of the fields and buttons.

The Trial Plan option is activated by default when the Altitude Menu is displayed. The first line of the menu reflects the ACID of the selected aircraft. Beneath the ACID are three buttons: Trial Plan, Amend, and INT. The menu contains selections for altitude that include altitudes above and below the assigned altitude for the flight. Altitude options are in increments of 1,000 below FL410 and in increments of 2,000 above FL410. The selection within the menu list that represents the aircraft's current altitude is displayed in reverse video (black characters on a white background).

The input field at the top of the view also contains the assigned altitude as a default value. This value is displayed in reverse video. The input field displays any keyboard input, which overwrites the previous contents of the field. Keyboard input may be entered regardless of the location of the cursor within the menu.

If the Trial Plan button is selected, acceptable input consists of three digits. If the Interim Altitude (INT) button is selected, acceptable input consists of three digits or a letter followed by three digits (e.g., R330). If the Amend button is selected, acceptable input consists of three to seven alphanumeric characters.

For Non-RVSM equipped aircraft, values at or above the lower RVSM altitude, e.g., FL290, are displayed in gray. When there is dwell emphasis on one of these altitudes, the gray coding is removed.

3.2.1.2 Route Menu

Figure 3–27, Plan Options Route Menu, provides the user with a method for creating a trial plan or amending a Flight Plan route of flight. The user may manually type in a new route, or may select a direct-to-fix or ATC preferred route option from the menu. The Route Menu may be accessed through the Plan Options Menu by selecting the Route field of an entry in the Aircraft List when there is not a pending reroute for the flight. If a pending reroute exists for the flight, the TFM Reroute menu will open instead of the Route Menu.

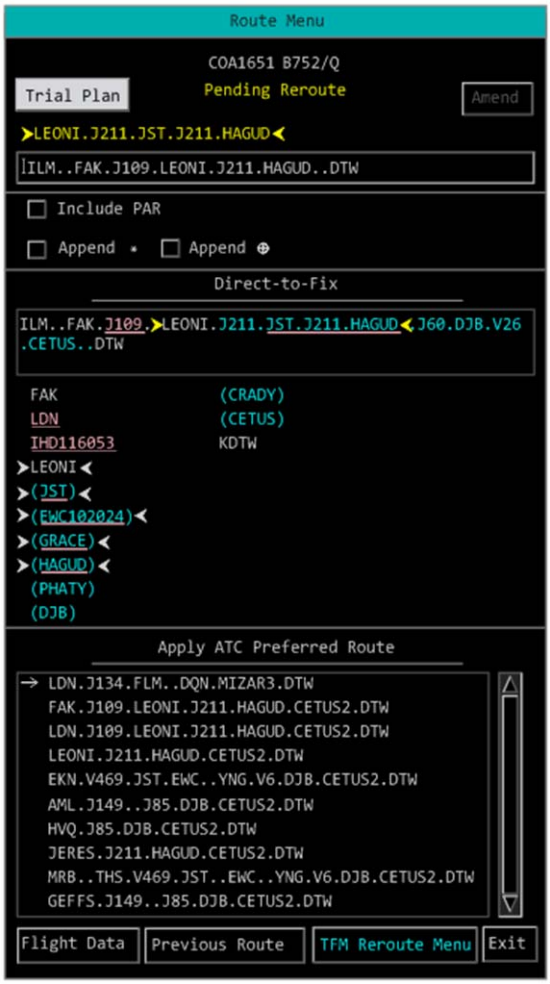


Figure 3–27. Plan Options - Route Menu

The the Aircraft ID and the Aircraft Type/Equipment are displayed in the first row of the Route Menu, followed by two buttons: **Trial Plan** and **Amend**. If there is a TFM pending reroute for the flight, the menu will display the message “Pending Reroute” in yellow text centered at the top of the menu under the ACID, type, and equipment suffix and between the “Trial Plan” and “Amend” mode buttons. If there is a TFM reroute for the flight, the TFM-protected segment of the route is displayed in the next row in yellow characters between yellow chevrons (**> <**). If the TFM reroute cannot be displayed on one line, the TFM reroute expands to two lines and the Route Menu expands vertically by one line. If the TFM reroute is longer than two lines, vertical scroll bars are displayed to the right of the TFM reroute. The chevrons are treated as part of the fix data and therefore, the right pointing chevron (>) is kept with the following fix and the left pointing chevron (<) is kept with the preceding fix. The following row is the **Keyboard Input** field containing the current route as a default value. If the menu is opened from the Plans Display/Plan Options Menu when a pending reroute has been trial planned and selected, the menu is populated with pending reroute data. The input field displays any keyboard input, which is inserted at the beginning of the field. Keyboard input may be entered regardless of the location of the cursor within the menu.

Below the Keyboard Input field are selection boxes for **Include Preferred Arrival Route (PAR), Append ***, and **Append** ⊕. PAR is the term used by the user for AARs. The default state for the Include PAR box is not selected. The Append ⊕ or the Append * may be in a selected state. Both of these buttons cannot be in a selected state at the same time. Selection of the **Append** ⊕ button results in automatic

cancellation (deselection) of the **Append *** button if it was previously selected. Selection of the **Append *** button results in automatic cancellation (deselection) of the Append ⊕ button if it was previously selected.

Below the selection boxes in the title **Direct-to-Fix** followed by a line separating the top portion of the Route Menu from ATC Intended Route display box. The ATC Intended Route display box is not selectable and cannot be edited. Underlined coral characters in the ATC Intended Route display box indicate that the flight is not eligible for the item in the route. Cyan characters with a coral underline indicate that the items are part of an uncleared AAR, ADAR, or ADR fix that the flight is not eligible for. If there is a TFM reroute in effect for a flight, the TFM-protected segment of the original route is displayed in white characters between white chevrons. If the ATC intended route cannot be displayed on one line, the ATC intended route display box expands to two lines, and the Route Menu expands vertically by one line. If the route is longer than two lines, vertical scroll bars are displayed to the right of the ATC intended route display box.

Beneath the ATC intended route display box are columns containing direct-to-fix names. Names displayed in cyan indicate that the item is an uncleared AAR fix that is expected to be cleared by the local facility and the item is not the route destination. Cyan characters within cyan parentheses indicate that the item is an uncleared AAR fix that is not expected to be cleared by the local facility (i.e., expected to be cleared by a down route facility) and the item is not the route destination. All fixes in the Route Menu for an uncleared AAR are coded the same way: either expected to be cleared by the local facility or expected to be cleared by another down route facility. Direct-to-fix columns have a limit of 10 rows, with one fix name displayed in each row of the column. The column data is separated from the remainder of the menu by a line. Below the line is the underlined title **Apply ATC Preferred Route**. Below the “Apply ATC Preferred Route” title, applicable preferred routes are listed. Eligible preferred routes are sorted to the top of the list, and indicated with an arrow (→) that points to the selection(s). The Preferred Route section of the menu may be scrolled up or down.

In the bottom row of the Route Menu is the **Flight Data**, **Previous Route**, the **TFM Reroute Menu**, and **Exit** buttons. The Previous Route button is grayed out when there is no Previous Route data (Figure 3–28, Previous Route Button Grayed Out). The “TFM Reroute Menu” button is displayed in cyan characters when there is a pending reroute associated with the flight. If there is no pending reroute associated with the flight, the “TFM Reroute Menu” button is grayed out.

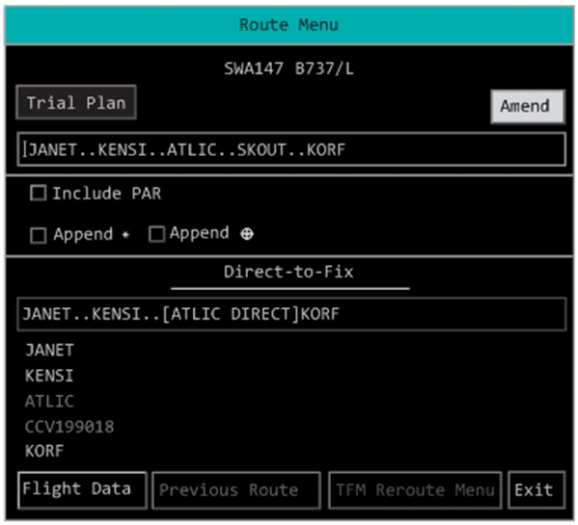
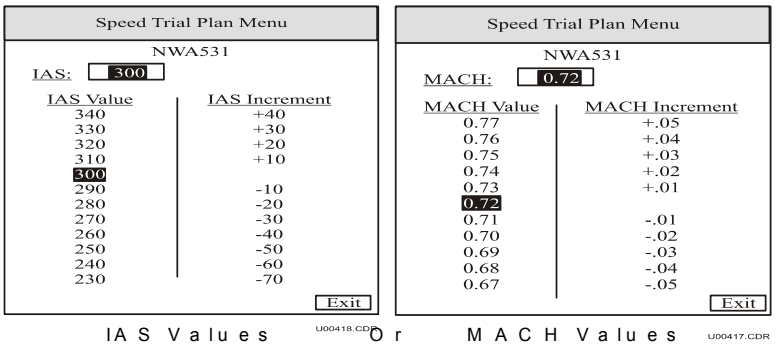


Figure 3–28. Previous Route Button Grayed Out

3.2.1.3 Speed Trial Plan Menu

Figure 3–29, Speed Trial Plan Menu, provides the user with a method for creating a trial plan for an aircraft by selecting a speed from the menu options, or by typing a speed value in the typing box. The Speed Trial Plan Menu is accessed through the Plan Options Menu.



IAS Values Or MACH Values

Figure 3–29. Speed Trial Plan Menu

The Speed Trial Plan Menu cannot be resized. The nominal size is large enough to display all of the fields and buttons. The first line of the display body shows the aircraft ID of the selected aircraft. The second line is an input field, which contains the current **IAS** or **MACH** speed as a default value. This value is displayed in reverse video (black characters on a white background). The input field echoes any keyboard input, which overwrites the previous contents of the field. Keyboard input may be entered regardless of the location of the cursor within the menu.

Beneath the input field are two columns of selections. The left column consists of selections under the heading of IAS Value or MACH Value. The IAS values are in increments of ten. The Mach values are in increments of .01. Selections representing speeds faster than the current speed, and selections representing speeds slower than the current speed are presented. The right column consists of selections under the heading of IAS Increment or Mach Increment. The number of selections in each column varies depending on the upper and lower limits for the flight.

3.2.1.4 Stop Probe Menu

The Stop Probe Menu (Figure 3–30, Plan Options Stop Probe Menu) is accessed via the Plan Options Menu. The purpose of the Stop Probe Menu is to provide the controller with a method for suspending conflict probing on a specified flight at its current location or beginning at a down route fix.

Figure 3–30. Plan Options Stop Probe Menu

The Stop Probe Menu cannot be resized. The nominal size is large enough to display all of the fields and buttons. The first line of the body of the menu displays the ACID of the selected aircraft. The destination fix is not displayed.

3.2.1.5 Trial Restrictions Menu

The user may activate or deactivate restrictions on a trial basis for a specific aircraft entering or leaving an assigned sector through the Trial Restrictions Menu (Figure 3–31, Plan Options Trial Restrictions Menu). The Trial Restrictions Menu is accessed from the Plan Options Menu.

The Trial Restrictions Menu contains the following:

a. **ACID field**: ACID displayed on first line.

b. **On**: contains a selectable radio button for each restriction listed; when a button is selected and the Create TP button is selected, a Trial Plan is created showing the result of turning the corresponding restriction on.

c. **Off**: contains a selectable radio button for each restriction listed; when a button is selected and the Create TP button is selected, a Trial Plan is created showing the result of turning the corresponding restriction off.

d. **Status**: reflects the current status of the restriction.

e. **Name**: name of the restriction.

f. **A/D**: indicates whether the restriction is an arrival and/or departure restriction.

g. **Start**: start time the restriction takes effect (first restriction time period).

h. **End**: stop time the restriction ends (first restriction time period).

i. **Start**: start time the restriction takes effect (second restriction time period).

j. **End**: stop time the restriction ends (second restriction time period).

k. **Airport**: two to five character identifier for the destination airport.

l. **Create TP button**: when selected, creates a Trial Plan based on user selections.

m. **Exit button**: exits the menu without creating a Trial Plan or saving any selections that have been made.

The title bar of the view contains the menu title. The first row of the menu contains the Create TP and Exit buttons.

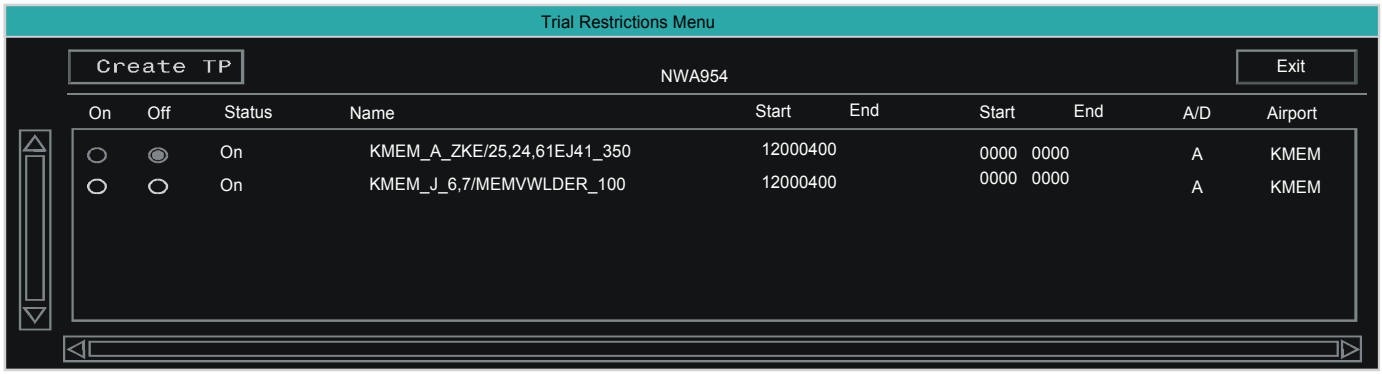


Figure 3–31. Plan Options Trial Restrictions Menu

The Trial Restrictions Menu presents two options: On or Off. When the menu is initially displayed, the buttons are deselected (blank). When the user selects the On button or the Off button, the selected button is filled in. Selecting a button once results in selecting it; selecting the button again results in deselecting it.

3.2.1.6 Plans Display

See Section 6, *Plans Display*, for a description of the Plans Display.

3.2.2 Hold Data Menu

The Hold Data Menu (Figure 3–32, Hold Data Menu) is accessed from the menu bar of the Aircraft List. The purpose of the Hold Data Menu is to provide the user with a method for:

- placing a flight in present position hold
- placing a flight in hold at a specified fix
- changing the holding fix, if the flight has not reached the fix
- canceling a hold
- entering, modifying, and deleting hold instructions (directions, turns, leg lengths) relating to the flight's holding status, and entering, modifying, and deleting EFC times

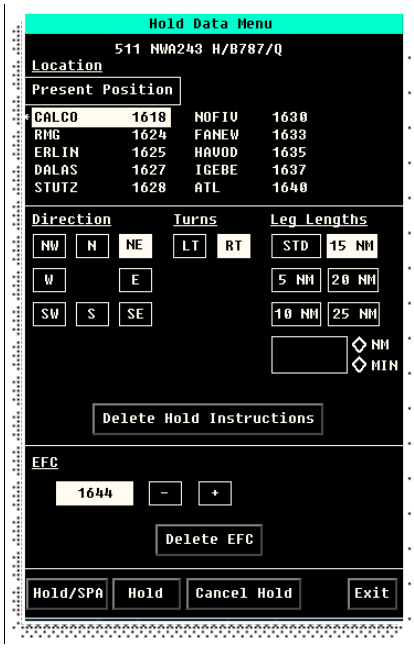


Figure 3–32. Hold Data Menu

The Hold Data Menu is displayed when the Hold Menu bar button is **left-clicked** on the Aircraft List. The Hold Data Menu contains the following components:

a. **Location**: the default Hold location is the fix associated with the Hold message. If there is not a current Hold message for a flight, the default Hold location is an adapted Holding fix on the route, if one exists. If there is no adapted Holding fix, the default Hold location is the next fix on the route based on the trajectory model for the flight. If the flight already is in hold when the Hold Data Menu is displayed, then the selected fix is the fix that was previously specified for this flight. If the flight has already reached the holding fix, then the specified fix (rather than the Present Position button) is shown as selected and all other fixes are grayed out and unavailable for selection.

   1. **Present Position**: indicates that the aircraft is in hold at its current trajectory position.
   2. **Fixes**: the fixes associated with the flight's current position and modeled trajectory. It is possible that the only fix listed for a flight is Present Position.

b. **Time**: expected time at each respective fix based on the aircraft's current position and the trajectory modeled estimated time of arrival at each fix.

c. **Direction**: one of eight cardinal directions of the compass corresponding to the holding area orientation respective to the flight trajectory at the time when the aircraft enters the Hold. Direction is specified via selecting one of eight radio buttons: N, NE, E, SE, S, SW, W, or NW. It is customary to hold the flight 180 degrees relative to its inbound heading. If the flight already has Hold instructions when the Hold Data Menu is displayed, then the direction is the direction that was previously specified for this flight.

d. **Turns**: LT and RT (left or right) turns associated with the Hold.

   NOTE: If the adapted Hold indicates direction/turns that are different from the standard default selection on the Hold Menu, then the defaults that are in accordance with the predefined Hold are applied. The default direction is RT. Turn direction is specified via selecting one of two

radio buttons: LT or RT. If the flight already has Hold instructions when the Hold Data Menu is displayed, then the selected turns are the turns that were previously specified for this flight.

e. **Leg Lengths**: leg lengths may be specified by selecting the STD (Standard) radio button or by specifying a value in nautical miles (NM) or minutes (MIN). The leg lengths may be specified in one of two ways:

   1. By selecting the desired radio button representing nautical miles (5NM, 10NM, 15NM, 20NM or 25NM) or
   2. By positioning the cursor in the input box and clicking the left trackball button, and then typing a numeric value, up to three digits. The MIN radio button to the right of the box is selected when the user activates the input box while one of the Leg Length radio buttons is selected. This button may be deselected by selecting the NM button.

      If the flight already has Hold instructions when the Hold Data Menu is displayed, then the leg length that was previously specified for this flight is the selected leg length when the menu is first displayed.

f. **Expect Further Clearance (EFC)**: the EFC represents the time the aircraft is expected to be cleared from the holding area. When the Hold Data Menu comes up, the EFC field will be an active field such that the controller does not have to select the field before overtyping the time in the input box. The default time contained in the EFC box is the flight's estimated time at the holding fix plus 30 minutes. If the flight already has an EFC time when the Hold Data Menu is displayed, then the EFC is the EFC that was previously specified for this flight.

g. **Minus (-) and Plus (+) Selection**: the buttons decrement or increment, respectively, the EFC time in 1 minute intervals.

h. **Hold/SPA**: when this button is selected:

   1. The Hold Data Menu is removed and the Hold Data Indicator (brown H in the Hold Data Indicator field) is displayed.

      NOTE: If the EFC is less than a parameter (nominally 5 minutes), then the H is coded yellow.

   2. The flight entry is moved to the Special Posting Area (SPA). If the entry was already in the SPA, then the location does not change.
   3. A brown H is displayed in the character space immediately to the right of the alert boxes if the flight has not reached the specified holding fix.
   4. A brown H is displayed in each of the alert boxes and the alert boxes themselves are coded brown if a present position hold is applied or the flight is at the holding fix.

i. **Hold**: when this button is selected:

   1. The Hold Data Menu is removed and the Hold Data Indicator (brown H in the Hold Indicator field) is displayed.

      NOTE: If the EFC is less than a parameter (nominally 5 minutes), then the H is coded yellow.

   2. A brown “H” is displayed in the character space immediately to the right of the alert boxes if the flight has not reached the specified holding fix.

3. A brown “H” is displayed in each of the alert boxes and the alert box themselves are coded brown if a present position hold is applied or the flight is at the holding fix.

j. **Delete EFC**: when this button is selected, the existing EFC time for the flight is deleted from the input box in the Hold Data Menu.

k. **Delete Hold Instructions**: when this button is selected, the existing hold instructions (direction, turns, and leg lengths) for the flight are deselected in the Hold Data Menu. For leg lengths, if the value was specified via the input box, then the value will be deleted from the input box.

l. **Cancel Hold**: when this button is selected:

1. The Hold Data Menu is removed.
2. Existing Hold data (holding fix, hold instructions, and EFC time) for the flight are deleted. If the Hold data are currently displayed in the ACL entry at the time they are deleted, then the contents of the field is switched back to Route.
3. The Hold Data Indicator (brown H in the Hold Data Indicator field) is removed.
4. The brown H is removed from the character space immediately to the right of the alert boxes if the flight had not reached the specified holding fix.
5. The brown H is removed from each of the alert boxes and the alert box brown coding is removed if the flight had reached the holding fix or was in present position hold.

m. **Exit**: the Hold Data Menu is removed; the changes (if any) are not retained.

If the flight is currently in **hold** (present position hold or has reached the holding fix) when the Hold Data Menu is displayed, the selected fix is the fix that was previously specified for this flight, and all other fixes are grayed out and unavailable for selection.

If the **fix time** is not available, the notation (**----**) is displayed in place of the time. This will occur for a fix that is in the converted route but is not on the trajectory. In the case where the holding fix that is selected has no fix time, the default EFC Time is set to **blanks** in the Hold Data Menu.

If the fix occurs multiple times in the Hold Data Menu, the first instance of the fix will be selectable. All subsequent occurrences of that fix in the Hold Data Menu will be grayed out and unavailable for selection.

The **Cancel Hold** button will be coded as unavailable for selection when the Hold Data Menu is displayed and a hold is not currently entered for that flight.

The **Hold/SPA** button and **Hold** button will be coded as unavailable or selection when one or more, but not all, of the holding instruction fields (direction, leg lengths, turns) have a selection specified or a value specified in the input box (leg lengths).

The **EFC input box** is **hot** by default when the Hold Data Menu is displayed. When the **Leg Length** input box is selected, any selection emphasis of the Leg Lengths buttons is removed.

3.2.3 Cancel Hold Confirmation Menu

The Cancel Hold Confirmation Menu (Figure 3–33, Cancel Hold Confirmation Menu) is accessed via right-clicking the Hold Indicator in the Aircraft List. The Cancel Hold Confirmation Menu allows the user to cancel the Hold. Selection of the **Exit** button simply removes the menu, and has no effect on the Hold.

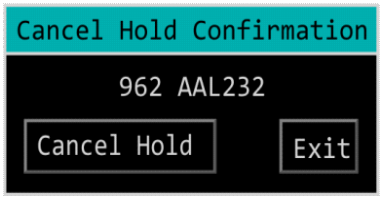


Figure 3–33. Cancel Hold Confirmation Menu

When the user clicks the **Cancel Hold** button, the menu is removed, the Hold for the flight is cancelled, and all the Hold indicators for the flight are removed from the Aircraft List and the GPD.

3.2.4 Sort Menu

The Sort Menu is accessed from the menu bar of the Aircraft list. The purpose of the Sort Menu is to provide the user with a method for specifying a sort order for entries in the Aircraft List. The Sort Menu (Figure 3–34, Sort Menu) is displayed when the Sort Menu bar button is **left-clicked** on the Aircraft List.

The first selection in the menu is **Sector/Non-Sector**. If Sector/Non-Sector is selected, the primary sort for the ACL groups flights is controlled by the current sector first, and then by non-sector flights. Flights in these two groups are sorted secondarily by other selected sort options in the menu. If Sector/Non-Sector is deselected, the ACL is sorted by selected sort option.

Figure 3–34. Sort Menu

The Sort Menu allows the following six sort orders:

1. **Aircraft ID**: Aircraft are sorted in the Normal Posting Area in alphanumeric order based on the aircraft ID.
2. **Boundary Time**: Aircraft List entries are sorted with the aircraft estimated to cross the sector boundary first at the top of the list.

3. **Conflict Status**: The red alerts are displayed at the top of the list, followed by the yellow alerts, and then the airspace alerts. Within each alert status group, the order is determined by the alert time with the earliest alert at the top. Conflict free aircraft are sorted at the bottom.
4. **Conflict Time**: Aircraft List entries are sorted by alert time, with the entry predicted to have the earliest occurring alert displayed at the top. Conflict free aircraft are sorted at the bottom of the list.
5. **Destination**: Aircraft are sorted alphanumerically according to each flights destination.
6. **Sector-by-Sector**: Aircraft List entries are sorted based on the controlling sector number. Aircraft under the users control are at the top of the list, followed by aircraft under other sectors control. They are sorted based on the alphanumeric sector identifier.

A user specifies a Sector/_____ option by selecting Sector/Non–Sector in the top portion of the Sort Menu, and the appropriate option from the bottom portion of the Sort Menu. For example, a Sector/ACID sort would result if the Sector/Non-Sector and the ACID buttons are highlighted when the menu is closed. The Sort Menu contains an **EXIT** button to exit out of the menu without making any changes.

3.2.5 Tools Menu

The Tools Menu (Figure 3–35, Tools Menu) is accessed by positioning the cursor on the button and clicking the left trackball button.

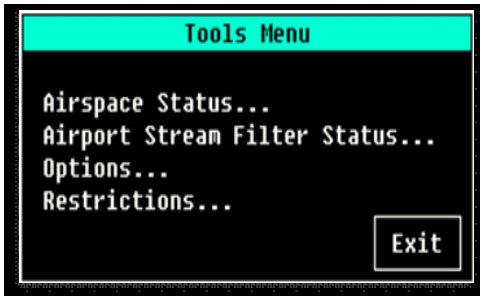


Figure 3–35. Tools Menu

The Tools Menu provides the user with options to access to the following views/menus to activate, deactivate, and schedule Special Activity Airspace (SAA):

- Airspace Status View
- Airport Stream Filter Status Display
- Options Menu
- Restrictions/Current Restrictions View

A brief description of each menu option is provided below followed by detailed description in the respective subsections:

a. **Airspace Status**: allows the user to view the current and planned use of Special Activity Airspace (SAA) up to 48 hours in advance.

b. **Airport Stream Filter Status**: allows the user to activate or deactivate arrival or departure stream filters used to suppress alerts between aircraft going to or departing from the same airport.

c. **Options**: allows the user to enable or disable the Drop Track Delete, IAFDOF Manual, and Non-Reduced Vertical Separation Minimum (RVSM) Indicator functions.

d. **Restrictions**: provides a list of altitude and/or speed restrictions imposed on or by the sector.

3.2.5.1 Airspace Status View

The Airspace Status View allows the user to view the current and planned use of SAA. Figure 3–36, Expanded Airspace Status View, shows an example of the Airspace Status View. Designated RA-positions may have the capability to change the status of some SAAs, modify the schedules of some SAAs, and/or change the altitude limits for some SAAs. If the sector position has SAAs of operational interest for display, the user will be able to filter the display of SAAs between SAAs that are of operational interest to the sector position and all the SAAs in the local facility. Users may also be able to display SAAs of adjacent facilities.

Figure 3–36. Expanded Airspace Status View

The Airspace Status View may also be displayed through the Graphic Plan Display. To open the view, the user selects the **Tools…** Menu bar button with the left trackball button and then selects the **Airspace Status** Menu option from the Options Menu with the left trackball button. To close the Airspace Status View, the user selects the view close pick area (**X**).

The Airspace Status View can be expanded as shown in Figure 3–36 to show all the schedules that will become active (postponed schedules are not shown) for the current day and those for the next day, or it may be compressed so that only the first line of an SAA is shown. When the view is in the expanded state, the word **EXPANDED** is displayed in the view header. When the view is in the compressed state, the word **COMPRESSED** is displayed in the view header. The user can compress/expand the view from the Airspace Status View Menu.

The Airspace Status View provides radio buttons which are used by the user to turn SAAs on, off, or to a scheduled status. These radio buttons are respectively listed in the **ON**, **OFF**, and **SCH** columns. SAAs that are set to SCH turn on and off according to times specified in schedules. Schedules will be ignored if he SCH mode is not selected. Selected radio buttons are filled in while unselected buttons are not filled in. If the user cannot change the status of an SAA, then the fill of the selected radio button and the outlines of the radio buttons for the SAA are **light gray**. When the user can change the status of an SAA, the fill of the selected radio button and the outlines of the radio buttons are **white**. **Gray** fill may also be seen on a radio button that is selectable (white outline). This indicates that the system is processing the

request to change the state of an SAA. Once the selection is implemented, the fill reverts to white. Only one radio button may be selected at a time.

The **NAME** column displays the name of the SAA and serves as a pick area that allows the user to access the Airspace Schedule Menu for that SAA. The NAME column is 34 characters wide. If the SAA is owned by another facility, the facility's three letter identifier will follow the SAAs name in parentheses. SAAs are sorted with the local facility's SAAs listed first in alphanumerical order by SAA Sort ID. The remaining SAAs are sorted alphanumerically by facility indicator, then by SAA Sort ID. The Sort ID is defined in local adaptation or, if values are not locally adapted, the default value for the sort ID will be the 10 character SAA.

The **STATUS** column reflects the current status of the SAA. An SAA is ON (**active or hot**), or OFF (**inactive or cold**). If an SAAs status is ON, its name, status, altitude values and the currently active schedule, if any, are coded in SAA **orange**. If the SAA is OFF, its name, status, and displayed schedules, if any, are coded in **white** if the user can change the schedule or altitude values, or **light gray** if the user cannot modify the schedule or altitude values.

The **BOTTOM** column displays the lower altitude boundary of the SAA while the **TOP** column displays the upper altitude boundary of the SAA. The **SCHEDULE** column indicates the day and time (UTC) the SAA will turn on and off (go active/hot and inactive/cold) if the SAA is set to scheduled (SCH).

Scroll bars appear when the view can be scrolled. If the view cannot be scrolled, the scroll bars are not displayed.

3.2.5.2 Airport Stream Filter Status Display

Figure 3–37, Airport Stream Filter (ASF) Status Display, displays a list of ASFs that are used to inhibit the conflict notification for aircraft-to-aircraft conflicts approaching an adapted set of destination airport(s) or departing an adapted set of departure airport(s). The title bar for the ASF Status Display contains the display title and sector ID or facility ID, depending on whether the user is displaying the sector-owned ASF or the facility-wide ASFs.

a. The sector owned ASF Status Display displays the current ASF status for the D–position. For the adapted eligible RA-position, the capability to turn displayed ASFs on or off may be available.

b. Facility-wide ASF Status Display displays the current ASF status for the local facility. For the adapted eligible RA–position, the capability to turn some or all of the displayed ASFs on or off may be available.

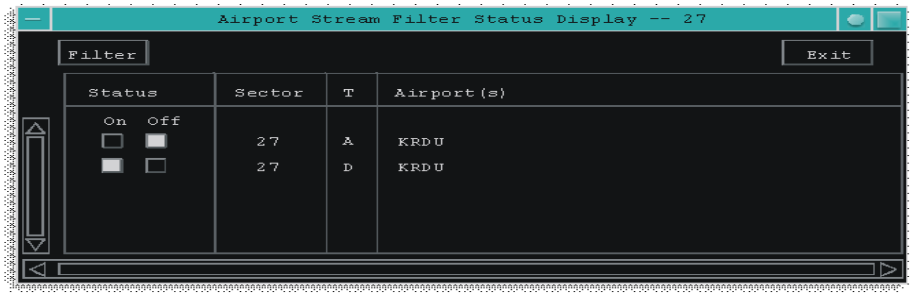


Figure 3–37. Airport Stream Filter (ASF) Status Display

The user may activate or deactivate an Airport Stream Filter for a RA-Position. Eligible adapted RA-Positions may activate or deactivate Airport Stream Filter for each local RA-Position.

To activate/deactivate ASFs for the RA-Position:

1. Position the cursor on the **On** Current Status button (those airport streams that are associated with the sector position) and click the left trackball button. The On current status button turns gray and then turns to white-filled. The Off current status indicator turns from white filled to blank.
2. Position the cursor on the **Off** Current Status button (those airport streams that are associated with the sector position) and click the left trackball button. The Off current status button turns gray and then turn to white-filled. The On current status button changes from white-filled to blank.

To activate/deactivate ASFs for other RA-Positions:

1. Position the cursor on the **Filter** Menu bar button and click the left trackball button. The Airport Stream Filter Status Display is displayed with the current status of each airport stream filter for the facility, the sector number, the ASF type, and text description of the stream.
2. Position the cursor on the **On** Current Status button and click the left trackball button. The On Current Status button turns gray and then turns to white-filled. The Off current status indicator turns from white filled to blank.
3. Position the cursor on the **Off** Current Status button and click the left trackball button. The Off current status button turns gray and then turns to white-filled. The On Current Status button changes from white filled to blank.

3.2.5.3 Restrictions/Current Restrictions View

Figure 3–38, Tools Restrictions View, provides a list of altitude and/or speed restrictions imposed by the assigned sector position on surrounding sector(s)/center(s) as well as restrictions that are imposed on the assigned sector by the surrounding sector(s)/center(s). If the sector position has restrictions of operational interest for display, the user will have the capability to filter the display of restrictions between those restrictions that are of operational interest to the sector position and all of the restrictions that apply to the local facility.

Figure 3–38. Tools Restrictions View

The Restrictions View may also be displayed through the Graphic Plan Display. To access the Restrictions View, the user selects the **Tools…** Menu bar button with the left trackball button in either display then

selects the **Restrictions** Menu option with the left trackball button. To close the view, the user selects the view close pick area (**X**).

If there is more data available for display than specified in the number of lines setting, a vertical scroll bar will appear. If the data being displayed is wider than the active display area, a horizontal scroll bar will appear.

The user can adjust the number of lines to be displayed at a given time before the vertical scroll bar appears, but cannot resize the width of the view. The **LINES** value can be set as low as 3, while the maximum setting is **21+**. When set to **21+**, the number of displayed lines will automatically expand to fit the data available for display until the view is the height of the active display surface (i.e., vertical dimension of the physical display). If more data is present, scroll bars will appear.

The Restrictions View is opaque and has a view border. The view header contains the title of the view along with the:

- the filter toggle pick area (**FACILITY-WIDE** or **SECTOR (sector ID)**)
- view Menu pick area (**M**)
- the view close pick area (**X**)

The filter toggle pick area displays the current state of the filter. The number in SECTOR (sector ID) is the sector identification number. If FACILITY-WIDE is displayed in the filter toggle pick area, the view contains all of the restrictions that apply to the facility. If SECTOR (sector ID) is displayed, the view contains only those restrictions of operational interest to the sector position. If there are no restrictions of operational interest to the sector position, the filter toggle pick area will not be displayed.

The Restrictions View provides radio buttons which are used by the user to turn the restrictions on or off automatically, following the adapted schedule. These radio buttons are respectively listed in the **ON**, **OFF**, and **SCH** columns.

Scheduled restrictions turn on and off based on the times entered in adaptation. Selected radio buttons are filled in while unselected buttons are not filled in. If the user cannot change the status of a restriction, the fill of the selected radio button and the outlines of the radio buttons are **gray**. When the user can change the status of a restriction, the fill of the selected radio button and the outlines of the radio buttons are white. **Gray fill** may also be seen on a radio button that is selectable (white outline). This indicates that the system is processing the request to change the state of a restriction. Once the selection is implemented, the fill reverts to **white**. Only one radio button may be selected at a time.

The fourth column in the Restrictions View is the **STATUS** column. The STATUS column reflects the current status of the restriction, whether the restriction is currently ON (**active**), or OFF (**not active**). The fifth column is the **NAME** column. The NAME column displays the name of the restriction which is set in adaptation. If the NAME column is **white**, the restrictions are imposed by the receiving sector on another sector. If the NAME column is **yellow**, the restrictions are imposed on the receiving sector by another sector. This column is 50 characters wide.

The next four columns are for the times the restrictions are scheduled to be on or active. A restriction can be scheduled to be active for two separate time periods. The **START** columns indicate the time (UTC) the restriction will turn on if set to scheduled (SCH), while the **END** columns indicate the time (UTC) a scheduled restriction will no longer apply.

The **A/D** column indicates whether a restriction applies based on the arrival or departure airport. The final column in the view, the **AIRPORTS** column, displays the airports that are affected by the restriction. The airport identifiers are two to five characters.

Scroll bars appear when the view can be scrolled. If the view cannot be scrolled, the scroll bars are not displayed.

The **Current Restrictions Menu** (Figure 3–39, Current Restrictions Menu) allows the user to turn restrictions On, Off, or revert to the prior setting on the Restrictions View for Flight Plan restrictions imposed on a specific aircraft.

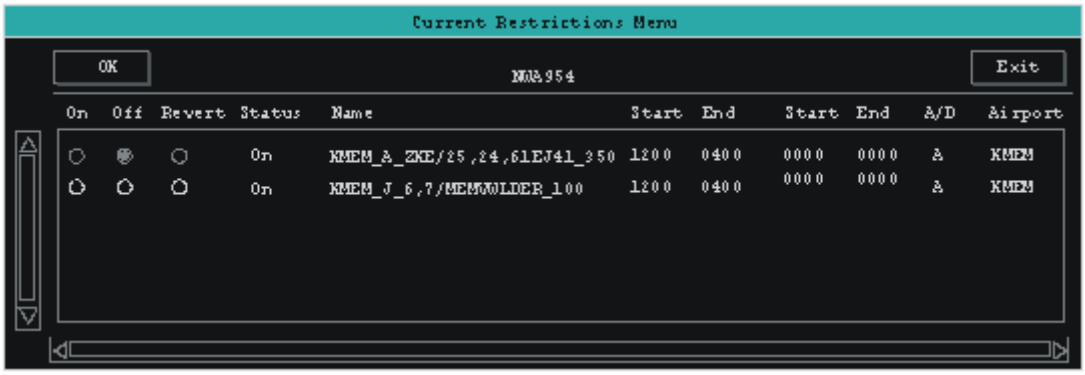


Figure 3–39. Current Restrictions Menu

The Current Restrictions Menu is accessed, following the selection of a flight identifier from the Tools Menu on the Aircraft List, the Graphic Plan Display, and the Plans Display. Current Restriction view radio buttons operate in a similar fashion as the Restrictions View. The **Revert** button however is unique to the Current Restriction Menu. When the Revert radio button is selected, the individual aircraft reverts back to the current Restriction Display schedule.

3.2.5.4 Options Menu

Figure 3–40, Options Menu, provides the user with a way to select/deselect following from the ACL:

- Display Coordination Column
- Track Delete Option
- IAFDOF Manual
- Non–RVSM Indicator

Each option is prefaces with a small **selection box**. A **white** selection box indicates activation of an option.

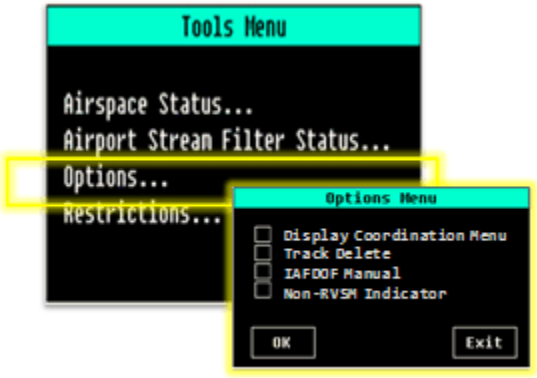


Figure 3–40. Options Menu

The **Display Coordination** option on the Options Menu allows the user to specify whether the Coordination column will be displayed in the Aircraft List. Left-clicking on the Display Coordination Menu option displays or suppresses the Coordination Column in the ACL.

The **Track** option allows the user to specify whether dropped tracks are to be deleted immediately from the ACL (vs. the default mode of timing out from the ACL). There are two options for entries on the ACL after the aircrafts track has been dropped. Normally, when a radar track is dropped, the entry will remain on the ACL until it has timed out. To set ERAM to gray out an entry when its track is dropped, left-click **Drop Track Delete** in the Options Menu, then left-click **OK**.

The **IAFDOF Manual** option allows the user to change from the default state of automatic IAFDOF indication to a manual mode, in which the user manually applies/removes two states of IAFDOF codes (indicated by yellow color coding and mustard color coding). Automatic IAFDOF coding is the default for ERAM. However, left-clicking IAFDOF Manual in the Options Menu will turn off this function. No automatic coding will appear, but the coding can be controlled manually.

a. Right-click on a **white** altitude to change it to yellow.

b. Right-click on a **yellow** altitude to change it to muted yellow.

c. Right-click on a **muted yellow** altitude to change it to white.

These different colors can be used to indicate coordination.

The **Non-RVSM indicator** option allows the user to specify whether Non-RVSM indication is to be displayed for flights. The Non-RVSM indicator is a coral box displayed around the altitude field of an entry when a flight is not equipped for RVSM flight and the flight plan assigned altitude, interim altitude, or reported altitude (Mode-C or pilot reported) is at or above the lower RVSM altitude (e.g., FL290. Left-clicking on the Non-RVSM Indicator in the Options Menu will turn off the Non-RVSM coding around altitudes in the ACL and GPD). This selection is only available if there is no RVSM airspace within the sector.

3.2.6 Flight Plan Template

When a user selects the Template menu bar button on the Aircraft List View and no Aircraft List entry is selected, the Flight Plan Template Figure 3–41 is displayed. The purpose of the Flight Plan Template is

to provide the user with a method for entering a Flight Plan message. The Flight Plan Template cannot be resized. The nominal size is large enough to display the flight plan data.

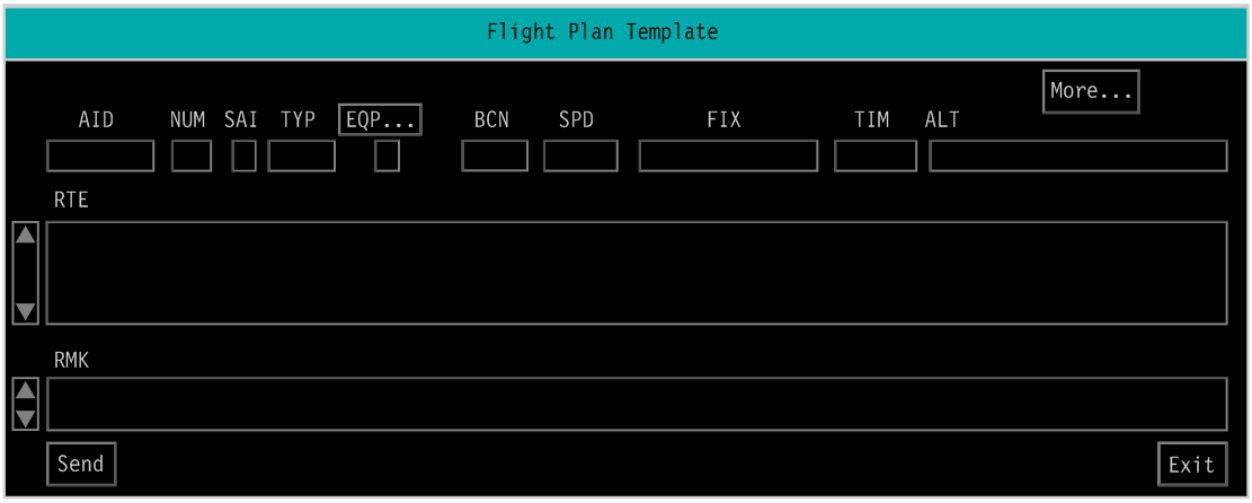


Figure 3–41. ACL Flight Plan Template

The Flight Plan Template contains input boxes for the associated fields of the Flight Plan message. Each input field is described in Table 3–3, Flight Plan Template Function Mapping. When the template is displayed, the input box for the first field (AID) is active. The first click in the Flight Plan Template results in the field being displayed in reverse video. The second selection in the field results in the removal of the reverse video and the cursor is located at the point of the selection. The user fills in the required fields and left-clicks on the **SEND** button to submit the flight plan. The following table shows the Flight Plan Template Function Mapping (Table 3–3).

Table 3–3. Flight Plan Template Function Mapping

Input Box or Button	Function	Input Box Character Limit
AID	Aircraft identifier	7
NUM	Number of aircraft	2
SAI	Special Aircraft Indicator	1
TYP	Aircraft Type	4
EQP	Equipment Qualifier **NOTE:** When the EQP button is selected, the Equipment Template is automatically displayed, pre-populated based on the stored International Civil Aviation Organization (ICAO) Format of the flight plan. See Section 3.2.8 for more information.	1
EQP button	Provides access to the Equipment Template	

Table 3–3. Flight Plan Template Function Mapping (Continued)

Input Box or Button	Function	Input Box Character Limit
BCN	Four-digital octal number assigning discrete or non-discrete beacon code	4
SPD	Filed true airspeed	5
FIX	Fix over which the aircraft is predicted to be at a specified time	12
TIM	Predicted time over the coordination fix in the predicted route of flight	5
ALT	Requested or assigned altitude	20
More button	Provides access to the Flight Plan (More) Template. The purpose of the Flight Plan (More) Template is to display, enter or edit standard ICAO flight plan information that is not included in the regular Flight Plan Template.	
RTE	Current route of flight	360*
RMK	Optional remarks as needed	180*
Send	Send button sends the prepared Flight Plan to the Host for processing	
Exit	Exit button closes the Flight Plan Template without sending the Flight Plan to Host	

3.2.7 Amendment Template

The purpose of the Amendment Template is to provide the user with a method for amending a flight plan for an individual aircraft from the Aircraft List. The Amendment Template contains input boxes to modify the fields listed in Table 3–4, Amendment Template – Function Mapping. The Amendment Template is populated with current values for each of the relevant fields.

Table 3–4. Amendment Template – Function Mapping

Field/Button	Function	Input Box Character Limit
AID	Aircraft identifier	7
NUM	Number of aircraft	2
SAI	Special Aircraft Indicator	1
TYP	Aircraft Type	4
EQP data field	Equipment Qualifier	1
EQP button	Provides access to the Equipment Template **NOTE:** When the EQP button is selected, the Equipment Template is automatically displayed pre-populated based on the stored ICAO Format of the flight plan. See Section 3.2.8 for more information.	

Table 3–4. Amendment Template – Function Mapping (Continued)

Field/Button	Function	Input Box Character Limit
BCN	Four-digit octal number assigning discrete or non-discrete beacon code	4
SPD	Filed true airspeed	5
FIX	Fix over which the aircraft is predicted to be at a specified time; or, for a proposed flight, the departure airport	12
TIM	Predicted time over the coordination fix in the predicted route of flight; or, for a proposed flight, the departure time	5
ALT	Requested or assigned altitude	20
More button	Provides access to the Amendment (More) Template. The purpose of the Amendment (More) Template is to display, enter or edit standard ICAO flight plan information that is not included in the regular Flight Plan Template.	
TFM Reroute Indicator	If the route includes a TFM-protected segment, the protected segment chevrons are displayed in yellow next to the “RTE” field label, above the Route input box.	
RTE	Current route of flight	360*
RMK	Optional remarks as needed	180*
Create FP	Create FP button invokes the Flight Plan Template and populates the template with the Amendment Template’s flight plan information. Flight data on the Equipment Template and the Flight Plan (More) Template will be removed.	
Send	Send button sends the amended flight plan to the Host for processing	
Exit	Exit button closes the Amendment Template without sending the Flight Plan to Host	

When a user selects an Aircraft List entry, and then left-clicks on the Template Menu bar button, the Amendment Template shown in Figure 3–42, ACL Amendment Template, opens populated with the flight plan data.

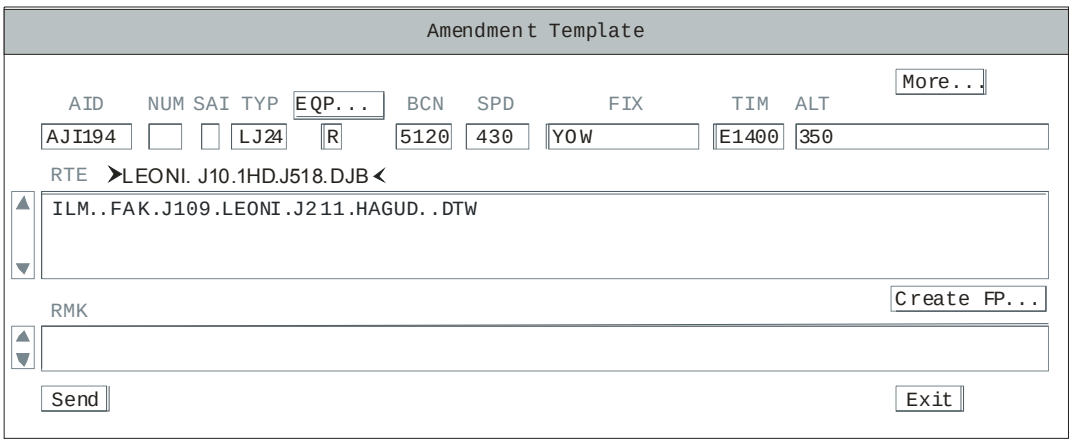


Figure 3–42. ACL Amendment Template

When the template is displayed, the input box for the field that corresponds to the field that was selected in the Aircraft List is active. The Flight ID, Type, and Code fields in the Aircraft List entry may be selected to display the Amendment Template. If the route includes a TFM-protected segment, the protected segment chevrons (marking the beginning and end points of the TFM portion of the route) is displayed in yellow above the Route input box. The chevrons will be treated as part of the fix data and therefore, the right pointing chevron (>) will be kept with the following fix and the left pointing chevron (<) will be kept with the preceding fix.

NOTE: If the TFM reroute cannot be displayed on one line, the TFM reroute will expand to two lines, and the Amendment Template will expand vertically by one line. If the TFM reroute is longer than two lines, vertical scroll bars will be displayed to the left of the TFM reroute.

3.2.8 Equipment Template

There are two types of Equipment Templates: a legacy version and an ICAO 2012 version. Both versions contain the ICAO one-letter identifiers followed by descriptive text names of various types of aircraft equipment. The purpose of the Equipment Template is to provide the user with a method for displaying, entering, or modifying a flight's ICAO equipment qualifier in a flight plan message or amendment message. FLTS processes the entered or edited aircraft equipment qualifier(s) into a single letter code populating the EQP text entry field.

Four separate templates that together constitute the Equipment Template:

1. Surveillance Equipment (SURV)
2. Navigation Equipment (NAV)
3. Communication Equipment (COMM)
4. Approach and Services Equipment (APP/SERV)

Selection of a particular type of Equipment Template is made from a corresponding tab on the Equipment Template main window.

The Equipment Template can be accessed from the Flight Plan Template or the Amendment Template. The type of Equipment Template associated with the Flight Plan Template depends on the ICAO Flight Data Format Indicator (IFFI) setting. The type of Equipment Template associated with the Amendment Template depends upon the format of the flight plan and the IFFI setting.

Table 3–5, Flight Plan Template Selection, shows which Flight Plan Template (Equipment and More Templates) is invoked based on the IFFI setting.

Table 3–5. Flight Plan Template Selection

IFFI Format	Flight Plan Template
Legacy	Legacy
Mixed (Legacy/ICAO 2012)	ICAO 2012
New	ICAO 2012

Table Table 3–6, Amendment Template Selection, shows which Amendment Template (Equipment and More Templates) is invoked based on the IFFI parameter setting and the stored ICAO format.

Table 3–6. Amendment Template Selection

IFFI Format	FP Stored ICAO Format	Amendment Template	Creation of FP From AM Template
Legacy	Legacy	Legacy	Yes, Legacy FP Template
Legacy	Indeterminate	Legacy	Yes, Legacy FP Template
Legacy	New	ICAO 2012	Prohibit the FP creation (Gray out the “Create FP” button)
Mixed (Legacy/ICAO 2012)	Legacy	Legacy	Yes, Legacy FP Template
Mixed (Legacy/ICAO 2012)	Indeterminate	ICAO 2012	Yes, New FP Template
Mixed (Legacy/ICAO 2012)	New	ICAO 2012	Yes, New FP Template
ICAO 2012	Legacy	Legacy	Prohibit the FP creation (Gray out the “Create FP” button)
ICAO 2012	Indeterminate	ICAO 2012	Yes, New FP Template
ICAO 2012	New	ICAO 2012	Yes, New FP Template

3.2.8.1 Equipment Template (Legacy)

Figure 3–43, Surveillance Equipment Template (Legacy), through Figure 3–46, Approach and Services Equipment Template (Legacy), show the formats for the four templates that together constitute the Legacy Equipment Template. Figure 3–43, Surveillance Equipment Template, shows the layout for the legacy Surveillance Equipment Template.

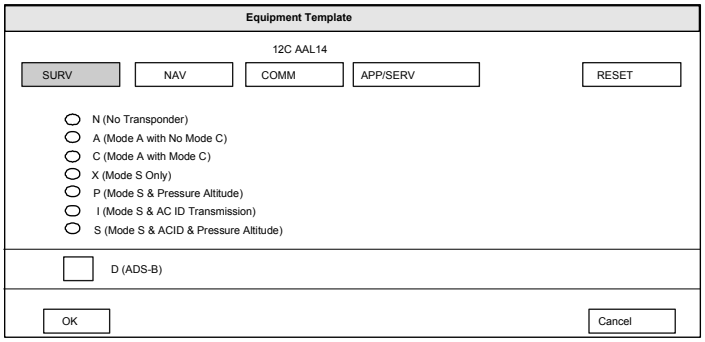


Figure 3–43. Surveillance Equipment Template (Legacy)

Table 3–7, Equipment Template (Legacy) – Surveillance List Function Mapping, provides a function mapping for the fields of the SURV tab of the legacy Equipment Template.

Table 3–7. Equipment Template (Legacy) – Surveillance List Function Mapping

Field/Button	Function	Field Type
N	No transponder (Field 910b 1st character)	Radio button
A	Mode A with no Mode C (Field 910b 1st character)	Radio button
C	Mode A with Mode C (Field 910b 1st character)	Radio button
X	Mode S only (Field 910b 1st character)	Radio button
P	Mode S and pressure altitude (Field 910b 1st character)	Radio button
I	Mode S and ACID transmission (Field 910b 1st character)	Radio button
S	Mode S and ACID and pressure altitude (Field 910b 1st character)	Radio button
D	Automatic Dependent Surveillance Broadcast (ADS-B) (Field 910b 2nd character)	Radio button
Other		
OK	Equipment Template is removed and the Template (Flight Plan or Amendment) is updated and displayed such that the equipment qualifier text entry box cannot be edited (grayed out) and the cursor rests over the Send button	
Reset	Changes to the template are discarded and the displayed data reverts to its initial state	
Cancel	Equipment Template is removed, the changes (if any) are not retained, and the Template (Flight Plan or Amendment) is displayed with the cursor positioned over the Exit button	

Table 3–8, Equipment Template – Navigation List Function Mapping, provides a function mapping for the fields of the NAV tab of the legacy Equipment Template.

Table 3–8. Equipment Template (Legacy) – Navigation (NAV) Equipment List Function Mapping

Field/Button	Function
D	Distance Measuring Equipment (DME) (Field 910a)
O	Very High Frequency Omni-directional (radio) Range (VOR) (Field 910a)
G	Global Positioning System (GPS)/Global Navigation Satellite System (GNSS) (Field 910a)
F	Automatic Direction Finding (ADF) System (Field 910a)
I	Internal Navigational System (INS) (Field 910a)
C	Long Range Navigation (LORAN C) (Field 910a)

Table 3–8. Equipment Template (Legacy) – Navigation (NAV) Equipment List Function Mapping (Continued)

Field/Button	Function
T	Tactical Air Navigation (TACAN) (Field 910a)
M	Omega (Field 910a)
Z (Other)	Other navigation equipment (Field 910a)
NAV/	Navigation equipment data. This is the active input box when the template is opened (Field 918a)
RNAV	Area Navigation. This is the default setting for the RNAV/RNP boxes. The radio button is not displayed if RNP is not adapted, but the RNAV label remains. When the RNAV radio button is selected, all of the fields are processed as RNAV.
RNP	Required Navigational Performance. The aircraft has on-board monitoring of RNAV. The radio button and label are displayed when adapted. When the RNP radio button is selected, all of the fields are processed as RNP.
RNAV/RNP fields	RNAV/RNP input boxes are activated by positioning the cursor over the field and clicking the left trackball button. The fields accept numeric input from 0 to 99.99 in the format (d)d(.d(d)). The order of display for the input boxes, from top to bottom, is: D, E, A, G, L, and S. G, L, and S input boxes are adaptable, and therefore not always present. The descriptive labels for S and L are adaptable. If a value for any of the adaptable fields is present in the system, but the field is not adapted to be displayed, then the corresponding value is not displayed. If only a subset of G, L, and S is adapted, there are no gaps in the display of the input boxes.
OK	Equipment Template is removed and the Template (Flight Plan or Amendment) is updated and displayed such that the equipment qualifier text entry I box cannot be edited (grayed out) and the cursor rests over the Send button
Reset	Changes to the template are discarded and the displayed data reverts to its initial state
Cancel	Equipment Template is removed, the changes (if any) are not retained, and the Template (Flight Plan or Amendment) is displayed with the cursor positioned over the Exit button

Figure 3–44, Navigation Equipment Template, shows the layout for the Navigation tab of the legacy Equipment Template including the adaptable RNP radio button and the adaptable G, L, and S input boxes and their corresponding, adaptable labels.

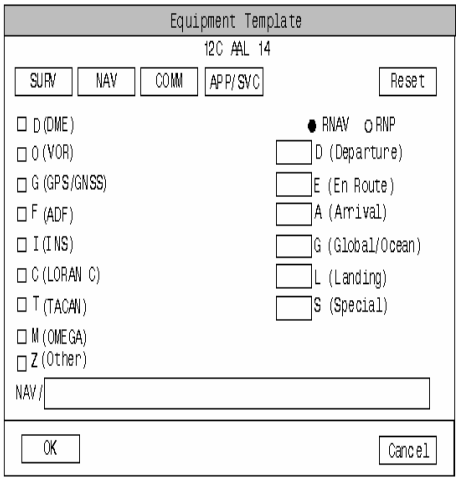


Figure 3–44. Navigation Equipment Template (Legacy)

Table 3–9, Equipment Template – Communication List Function Mapping, provides a function mapping for the fields of the COMM tab of the legacy Equipment Template.

Table 3–9. Equipment Template (Legacy) – Communication List Function Mapping

Field/Button	Function
H	High Frequency Communications (HF) (Field 910a)
V	Very High Frequency (VHF) (Field 910a)
U	Ultrahigh Frequency (UHF) (Field 910a)
J	Data link (Field 910a)
Z (Other)	Other navigation equipment (Field 910a)
B1	Dedicated 1090 MHz ADS-B OUT
B2	Dedicated 1090 MHz ADS-B IN/OUT
U1	UAT OUT
U2	UAT IN/OUT
V1	VDL Mode 4 OUT
V2	VDL Mode 4 IN/OUT
260B	Dedicated 1090 MHz ADS-B OUT
282B	UAT OUT
DAT/	Data related to data link capability (Field 918a)
COM/	Communications equipment data (Field 918a)
OK	Equipment Template is removed and the Template (Flight Plan or Amendment) is updated and the equipment qualifier text entry box is grayed out to prevent further editing, and the cursor rests over the Send button

Table 3–9. Equipment Template (Legacy) – Communication List Function Mapping (Continued)

Field/Button	Function
Reset	Changes to the template are discarded and the displayed data reverts to its initial state
Cancel	Equipment Template is removed, the changes (if any) are not retained, and the Template (Flight Plan or Amendment) is displayed with the cursor positioned over the Exit button

Figure 3–45, Communication Equipment Template, shows the layout for the Communications List tab of the legacy Equipment Template.

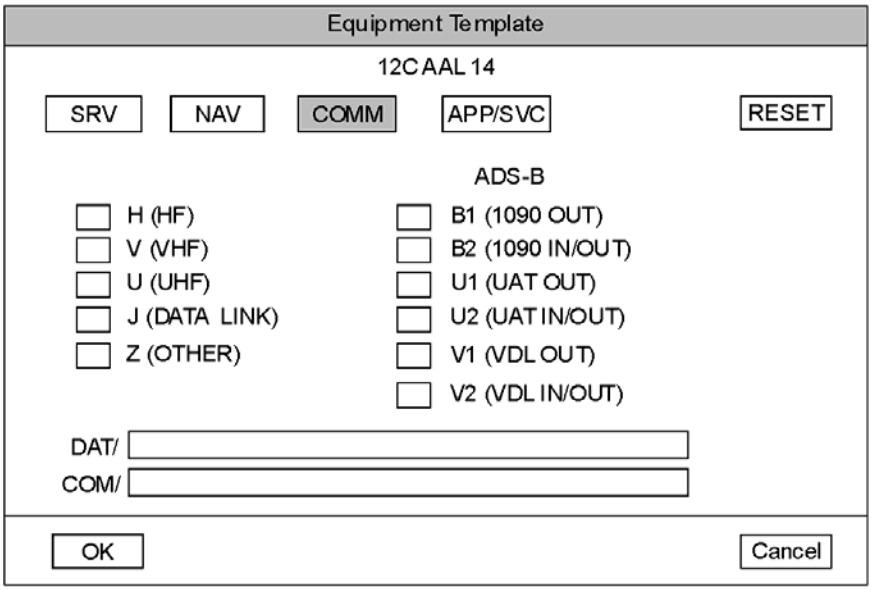


Figure 3–45. Communication Equipment Template (Legacy)

Table 3–10, Equipment Template – Approach and Services List Function Mapping, provides a function mapping for the fields of the APP/SERV tab of the legacy Equipment Template.

Table 3–10. Equipment Template (Legacy) – Approach and Services List Function Mapping

Field/Button	Function
L	Instrument Landing System (ILS) (Field 910a)
K	Microwave Landing System (MLS) (Field 910a)
R	Required Navigation Performance (RNP) (Field 910a)
W	Reduced Vertical Separation Minimum (RVSM) (Field 910a)
X	Minimum Navigation Performance Specification Airspace (MNPS) (Field 910a)
S	Standard (Field 910a)
Y	Canadian Minimum Navigational Performance Specifications Airspace (CMNPS) (Field 910a)

Table 3–10. Equipment Template (Legacy) – Approach and Services List Function Mapping (Continued)

Field/Button	Function
OK	Equipment Template is removed and the Template (Flight Plan or Amendment) is updated and the equipment qualifier text entry box is grayed out to prevent further editing, and the cursor rests over the Send button
Reset	Changes to the template are discarded and the displayed data reverts to its initial state
Cancel	Equipment Template is removed, the changes (if any) are not retained, and the Template (Flight Plan or Amendment) is displayed with the cursor positioned over the Exit button

Figure 3–46, Approach and Services Equipment Template (Legacy), shows the layout for the Approach and Services tab of the legacy Equipment Template.

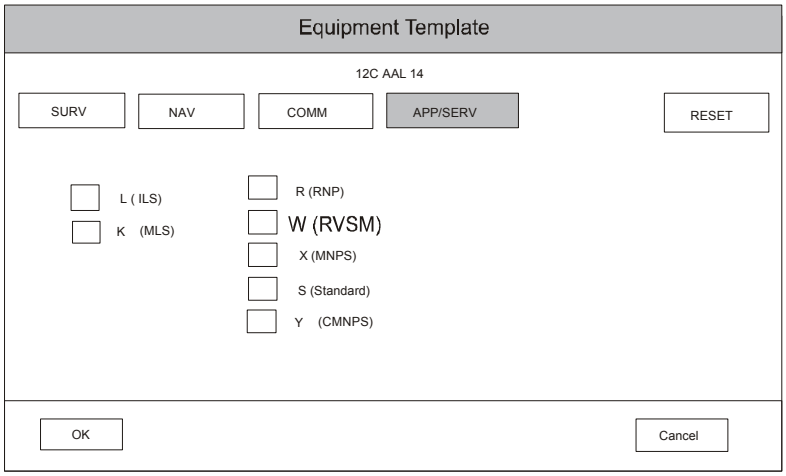


Figure 3–46. Approach and Services Equipment Template (Legacy)

3.2.8.2 Equipment Template (ICAO 2012)

Figure 3–47, Surveillance Equipment Template (ICAO 2012), through Figure 3–50, Approach and Services Equipment Template (ICAO 2012), show the formats of the four templates that together constitute the ICAO 2012 Equipment Template. Figure 3–47 shows the layout for the ICAO 2012 Surveillance Equipment Template.

Figure 3–47. Surveillance Equipment Template (ICAO 2012)

Table 3–11, Equipment Template (ICAO 2012) – Surveillance List Function Mapping, provides a function mapping for the fields of the SURV tab of the ICAO 2012 Equipment Template.

Table 3–11. Equipment Template (ICAO 2012) – Surveillance List Function Mapping

Field/Button	Function	Field Type
No Transponder	No transponder (default selection)	Radio button
A	Mode A with no Mode C (Field 910b 1st character)	Radio button
C	Mode A with Mode C (Field 910b 1st character)	Radio button
X	Mode S only (Field 910b 1st character)	Radio button
P	Mode S and pressure altitude (Field 910b 1st character)	Radio button
I	Mode S and ACID transmission (Field 910b 1st character)	Radio button
S	Mode S and ACID and pressure altitude (Field 910b 1st character)	Radio button
H	Mode S and ACID transmission and enhanced surveillance	Radio button
L	Mode S and pressure altitude and enhanced surveillance	Radio button
E	Mode S and pressure altitude and extended squitter	Radio button
ADS-B Category		
No 1090	No 1090 ADS-B equipage (default selection)	Radio button
B1	Dedicated 1090 MHz ADS-B OUT	Radio button

Table 3–11. Equipment Template (ICAO 2012) – Surveillance List Function Mapping (Continued)

Field/Button	Function	Field Type
B2	Dedicated 1090 MHz ADS-B IN/OUT	Radio button
NO UAT	No UAT equipage (default selection)	Radio button
U1	UAT OUT	Radio button
U2	UAT IN/OUT	Radio button
No VDL	No VDL Mode 4 equipage (default selection)	Radio button
V1	VDL Mode 4 OUT	Radio button
V2	VDL Mode 4 IN/OUT	Radio button
ADS-B Certification		
260B		Checkbox
282B		Checkbox
Other		
SUR/	Surveillance equipment data (Field 918)	Text input box
OK	Equipment Template is removed and the Template (Flight Plan or Amendment) is updated and displayed such that the equipment qualifier text entry box cannot be edited (grayed out) and the cursor rests over the Send button	
Reset	Changes to the template are discarded and the displayed data reverts to its initial state	
Cancel	Equipment Template is removed, the changes (if any) are not retained, and the Template (Flight Plan or Amendment) is displayed with the cursor positioned over the Exit button	

Table 3–12, Equipment Template – Navigation List Function Mapping, provides a function mapping for the fields of the NAV tab of the ICAO 2012 Equipment Template.

Table 3–12. Equipment Template (ICAO 2012) – Navigation (NAV) Equipment List Function Mapping

Field/Button	Function	Field Type
F	Automatic Direction Finding (ADF) System	Checkbox
O	Very High Frequency Omni-directional (radio) Range (VOR)	Checkbox
D	Distance Measuring Equipment (DME)	Checkbox
T	Tactical Air Navigation (TACAN)	Checkbox
RNAV		

Table 3–12. Equipment Template (ICAO 2012) – Navigation (NAV) Equipment List Function Mapping (Continued)

Field/Button	Function	Field Type
G	Global Positioning System (GPS)/Global Navigation Satellite System (GNSS)	Checkbox
I	Internal Navigational System (INS)	Checkbox
C	Long Range Navigation (LORAN C)	Checkbox
R	Required Navigation Performance (RNP)	Checkbox
X	Minimum Navigation Performance Specification Airspace (MNPS)	Checkbox
RNAV/RNP		
RNAV	Area Navigation. This is the default setting for the RNAV/RNP boxes. The radio button is not displayed if RNP is not adapted, but the RNAV label remains. When the RNAV radio button is selected, all of the fields are processed as RNAV.	Radio button
RNP	Required Navigational Performance. The aircraft has on-board monitoring of RNAV. The radio button and label are displayed when adapted. When the RNP radio button is selected, all of the fields are processed as RNP.	Radio button
RNAV/RNP fields	RNAV/RNP input boxes are activated by positioning the cursor over the field and clicking the left trackball button. The fields accept numeric input from 0 to 99.99 in the format (d)d(.d(d)). The order of display for the input boxes, from top to bottom, is: D, E, A, G, L, and S. The G, L, and S input boxes are adaptable, and therefore not always present. The descriptive labels for S and L are adaptable. If a value for any of the adaptable fields is present in the system, but the field is not adapted to be displayed, then the corresponding value is not displayed. If only a subset of G, L, and S is adapted, there are no gaps in the display of the input boxes.	Text input box
RVSM		
W	Reduced Vertical Separation Minimum (RVSM)	Checkbox
Other		

Table 3–12. Equipment Template (ICAO 2012) – Navigation (NAV) Equipment List Function Mapping (Continued)

Field/Button	Function	Field Type
NAV/	Navigation equipment data. This is the active input box when the template is opened. (Field 918)	Text input box
OK	Equipment Template is removed and the Template (Flight Plan or Amendment) is updated and displayed such that the equipment qualifier text entry box cannot be edited (grayed out) and the cursor rests over the Send button.	
Reset	Changes to the template are discarded and the displayed data reverts to its initial state.	
Cancel	Equipment Template is removed, the changes (if any) are not retained, and the Template (Flight Plan or Amendment) is displayed with the cursor positioned over the Exit button.	

Figure 3–48, Navigation Equipment Template, shows the layout of the Navigation tab of the ICAO 2012 Equipment Template including the adaptable RNP radio button and the adaptable G, L, and S input boxes and their corresponding, adaptable labels.

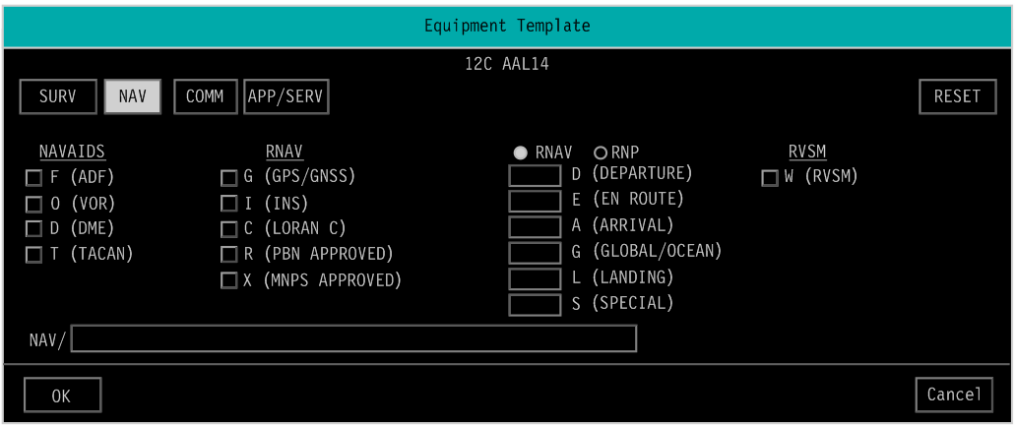


Figure 3–48. Navigation Equipment Template (ICAO 2012)

Table 3–13, Equipment Template – Communication List Function Mapping, provides a function mapping for the fields of the COMM tab of the ICAO 2012 Equipment Template.

Table 3–13. Equipment Template (ICAO 2012) – Communication List Function Mapping

Field/Button	Function	Field Type
Voice Category		
H	High Frequency Communications (HF) (Field 910a)	Checkbox
V	Very High Frequency (VHF) (Field 910a)	Checkbox

Table 3–13. Equipment Template (ICAO 2012) – Communication List Function Mapping (Continued)

Field/Button	Function	Field Type
U	Ultrahigh Frequency (UHF) (Field 910a)	Checkbox
Y	8.33 kHZ (Field 910a)	Checkbox
CPDLC Category		
J1	ATN VDL MODE 2 (Field 910a)	Checkbox
J2	FANS1/A HF (Field 910a)	Checkbox
J3	FANS1/A VDL MODE A (Field 910a)	Checkbox
J4	FANS1/A VDL MODE 2 (Field 910a)	Checkbox
J5	FANS1/A INMARSAT (Field 910a)	Checkbox
J6	FANS1/A MTSAT (Field 910a)	Checkbox
J7	FANS1/A IRIDIUM (Field 910a)	Checkbox
ACARS Category		
E1	FMCWPR (Field 910a)	Checkbox
E2	D-FIS (Field 910a)	Checkbox
E3	PDC (Field 910a)	Checkbox
SATELLITERTF		
M1	INMARSAT	Checkbox
M2	MTSTAT	Checkbox
M3	IRIDIUM	Checkbox
Other		
DAT/	Data related to data link capability (Field 918)	Text input box
COM/	Communications equipment data (Field 918a)	Text input box
OK	Equipment Template is removed and the Template (Flight Plan or Amendment) is updated and displayed such that the equipment qualifier text entry box cannot be edited (grayed out) and the cursor rests over the Send button	
Reset	Changes to the template are discarded and the displayed data reverts to its initial state	
Cancel	Equipment Template is removed, the changes (if any) are not retained, and the Template (Flight Plan or Amendment) is displayed with the cursor positioned over the Exit button	

Figure 3–49, Communication Equipment Template, shows the layout for the Communications List tab of the ICAO 2012 Equipment Template.

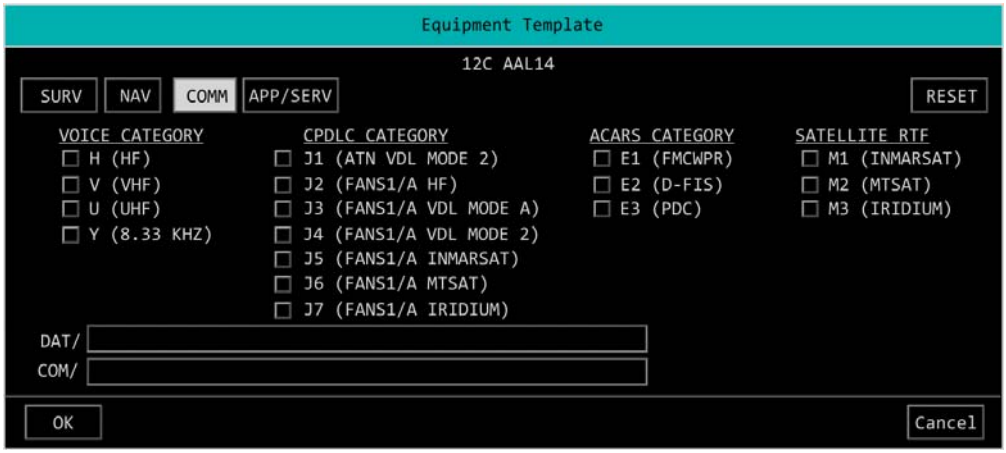


Figure 3–49. Communication Equipment Template (ICAO 2012)

Table 3–14, Equipment Template – Approach and Services List Function Mapping, provides a function mapping for the fields of the APP/SERV tab of the ICAO 2012 Equipment Template.

Table 3–14. Equipment Template (ICAO 2012) – Approach and Services List Function Mapping

Field/Button	Function	Field Type
L	Instrument Landing System (ILS) (Field 910a)	Checkbox
K	Microwave Landing System (MLS) (Field 910a)	Checkbox
A	Ground Based Augmentation System (GBAS) Landing System (Field 910a)	Checkbox
B	Localizer Performance with Vertical Guidance (LPV) (Field 910a)	Checkbox
S	Standard (Field 910a)	Checkbox
Other		
OK	Equipment Template is removed and the Template (Flight Plan or Amendment) is updated and displayed such that the equipment qualifier text entry box cannot be edited (grayed out) and the cursor rests over the Send button	
Reset	Changes to the template are discarded and the displayed data reverts to its initial state	
Cancel	Equipment Template is removed, the changes (if any) are not retained, and the Template (Flight Plan or Amendment) is displayed with the cursor positioned over the Exit button	

Figure 3–50 shows the layout for the Approach and Services tab of the ICAO 2012 Equipment Template.

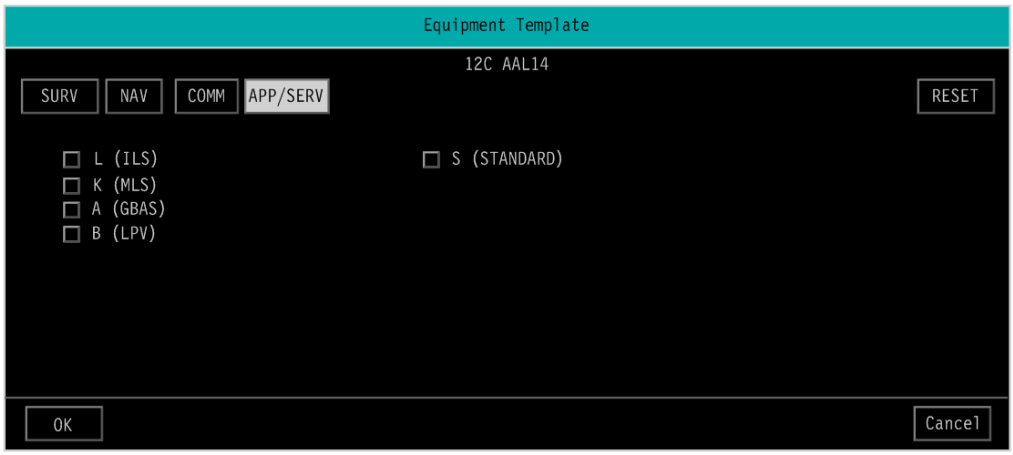


Figure 3–50. Approach and Services Equipment Template (ICAO 2012)

3.2.9 Previous Route Menu

The purpose of the Previous Route Menu (Figure 3–51) is to provide the user with a method for displaying the Previous Route and optionally applying the previous flight plan route of flight and pending reroute notification if applicable. The fix, time, and route data, along with the TFM-protected segment of the route, if any, is displayed for reference purposes only and can not be edited. The Previous Route Menu may be accessed from the Route Menu or from the Plan Options Menu.

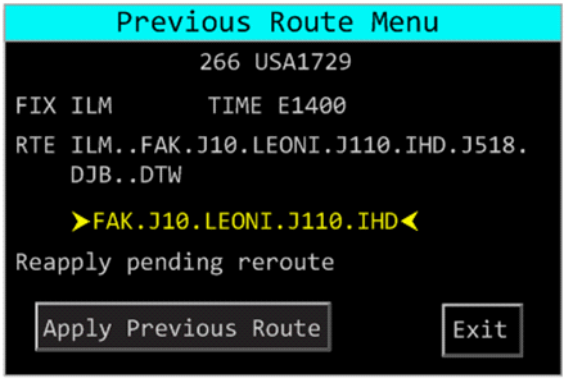


Figure 3–51. Previous Route Menu

The Aircraft ID is displayed in the first row of the Previous Route menu. The second row shows the data for the current coordination fix and the coordination time. The third row shows the previous route. The width of the route field is 50 characters. If the previous route exceeds 50 characters, the route wraps to the next line. If there is a TFM reroute for the flight, the row following the previous route shows the TFM-protected segment of the previous route. The TFM-protected segment of the route is displayed in yellow. The next row contains the message “Reapply pending reroute” if there is a pending reroute associated with the previous route data. The bottom row of the Previous Route Menu contains the “Apply Previous Route” and “Exit” buttons. If the user selects the Apply Previous Route button, the route is updated to the previous route. If the user selects the Exit button, the menu is removed and the route is not updated.

3.2.10 TFM Quick View

The TFM Quick View (Figure 3–52) allows controllers the ability to view a pending reroute, apply the route, and access the TFM Reroute menu (Section 3.2.11). The TFM Quick View is displayed by left or middle picking the cyan “T” in the ACL TFM indicator field. In the case where a route fails a validation or other error and the TFM Reroute menu is not able to be brought up, controllers can still view the pending reroute via the TFM Quick View.

The header of the TFM Quick View includes the ACID, type, and equipment suffix. Centered in the menu is the TFM pending reroute data. The reroute data will start from the divergent fix where the flight leaves the current route to join the reroute (or the first fix on the pending reroute if there is not a specific divergent fix on the current route) and continues to the convergent fix where the flight rejoins the current route. Note that the reroute string may not contain a divergent fix that is on the current route of flight or a convergent fix (reroute may show a new route string all the way to the destination where the destination is then coded as the convergent fix). A more detailed definition of each point is included in the TFM Reroute Menu (Section 3.2.11).

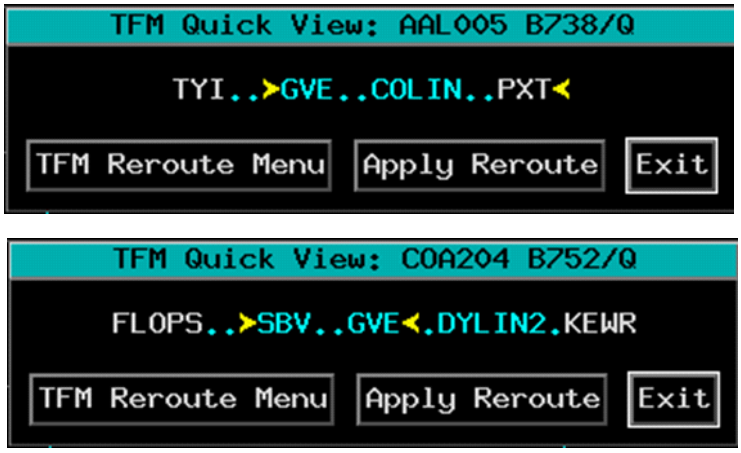


Figure 3–52. TFM Quick View

The TFM Quick View contains 3 buttons: these are TFM Reroute Menu, Apply Reroute, and Exit. The function for each button is described below:

- **TFM Reroute Menu**: closes the TFM Quick View and brings up the TFM Reroute menu.
- **Apply Reroute**: applies the pending TFM reroute and updates the flight plan in the system. Once selected, the TFM Quick View is closed.
- **Exit**: closes the TFM Quick View without applying the reroute. The is the cursor’s default position when TFM Quick View is opened.

3.2.11 TFM Reroute Menu

The TFM Reroute Menu (Figure 3–53) provides a way for the controller to apply, reject, trial plan, and/or modify a pending reroute that was sent by TFM. The primary access point for the TFM Reroute Menu is by left picking the Route Field within the Aircraft List. It may also be accessed from the TFM Quick View (Section 3.2.10). The header of the TFM Reroute View includes the ACID, type, and equipment suffix.

There are three major sections of the TFM Reroute Menu: “Current Route”, “Pending TFM Reroute”, and “Direct-to-Fix”. These sections are separated by a single gray line that spans the width of the menu.

Figure 3–53. TFM Reroute Menu

The current route is displayed under the gray “Current Route” section line. The TMI ID is displayed with the “Pending TFM Reroute:” title. The pending reroute data is displayed in the next row and contains the following:

- **Divergent Fix**: the first fix of the pending reroute at which the flight will leave the current route of flight and join the reroute. This may be a fix that is not in the filed flight plan route. The divergent fix may also be present position and not a defined fix. A divergent fix may be within the Protected Segment.
- **Transition Segment – Divergent**: the route segment from the divergence point to the first fix in the Protected Segment.
- **Protected Segment**: the part of a flight-specific reroute that is important for achieving the goal of the reroute TMI. This area can include a single fix, a segment, or multiple, continuous segments. This area will be protected from ATC automation processing for adapted routings. Sector controllers will ideally avoid moving the aircraft off of this segment, except when operationally necessary. This part of the reroute is used by the TFM automation to determine reroute conformance. The protected segment is bound by yellow chevrons. A reroute may not necessarily include a protected segment. A protected segment may include a divergent/convergent fix.
- **Transition Segment – Convergent**: the route segment from the last fix in the protected segment to the convergence fix or point.
- **Convergent Fix**: the last fix in the pending reroute at which the flight will rejoin the current route of flight. This fix may not be on the flight plan route, but transitions the flight to rejoin the current route. If

the reroute converges within a STAR then the transition fix becomes the convergence fix. The reroute may converge at the destination where the destination becomes the convergence fix.

If the divergent and convergent fixes are within the flight plan route they are coded in white. If the fixes are not in the flight plan route they are coded in cyan.

The typing buffer is displayed under the pending reroute data and is pre-populated with the entire route data from the aircraft's present position to destination, and includes the pending reroute. The typing buffer displays any keyboard input, which is inserted at the beginning of the field by default unless the operator selects elsewhere within the typing buffer. Keyboard input may be entered regardless of the location of the cursor within the menu. Chevrons or protected segments are not shown in the typing buffer.

A Direct-to-Fix list is the third section of the menu and provides all fixes along the route of flight. Each fix in the Direct-to-Fix section has a chevron to the right and the left of the fix. If the fix does not have a chevron, the space is blank. The functionality, layout, and coding characteristics of the Direct-to-Fix section are the same as in the Route Menu. Once a fix is selected, it is included in the reroute string starting at the fix selected, and an amendment or trial plan is performed depending on the mode of the menu and the menu is closed.

The TFM Reroute menu contains 6 buttons; these are the Trial Plan mode button (top left of menu), Amend (top right of menu), Apply Reroute (central in the menu), Reject, Route Menu, and Exit (all three at the bottom of the menu respectively). The Trial Plan button is grayed out if trial planning is down. When the menu is opened the cursor resides to the left of the Apply Reroute button and the menu is defaulted to trial plan mode. The function of each button is provided below:

- **Trial Plan**: mode button selected by default when the menu is opened. When selected, the menu is in trial plan mode. Performing an Enter off of the keyboard, selecting the Apply Reroute button, or selecting from the Direct-to-Fix list will bring up the Plans Display with the trial plan results.
- **Amend**: when the Amend mode button is selected, the menu is in amend mode. Pressing the keyboard Enter, selecting the Apply Reroute button, or selecting from the Direct-to-Fix list will amend the flight.
- **Apply Reroute**: in amend mode, applies the pending TFM reroute and updates the flight plan in the system. Once selected the TFM Reroute menu is closed. In trial plan mode, trial plans the pending TFM reroute showing the results via the Plans Display. Once selected the TFM Reroute menu is closed.
- **Reject**: removes the "T" from all sectors' displays. A confirmation will be displayed to confirm a rejection.
- **Route Menu**: closes the TFM Reroute menu and brings up the Route Menu populated with current flight plan data. This provides access to the current flight planned Route Menu when there is a pending reroute.
- **Exit**: closes the TFM Reroute menu without applying the reroute.

3.2.11.1 Reject Confirmation Menu

The Reject Confirmation Menu (Figure 3–54) provides the user the means to confirm the rejection of a pending reroute before the TFM indicator is removed from the controllers display within a facility. It is displayed after the user selects the Reject button on the TFM Reroute menu. The menu Reject Confirmation

Menu is displayed to the right of and adjacent to the Reject button on the TFM Reroute menu. The Reject Confirmation menu includes its title header and the message “Reject Pending Reroute?” in the body of the menu.

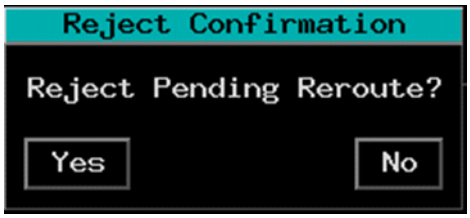


Figure 3–54. Reject Confirmation Menu

The Yes button, located at the bottom of the menu, allows the user to confirm the rejection of the pending reroute. The No button, also located at the bottom of the menu, allows the user to cancel the rejection of the pending reroute. If the user selects Yes, the Reject Confirmation menu and the TFM Reroute menu are removed, and the TFM indication and applicable route action coding is removed from all displays within a facility. If the user selects No, the Reject Confirmation menu is removed and the TFM indication and route action coding (if applicable) remains displayed. The TFM Reroute menu remains up so that the user has the option of performing another action. A pick or keyboard enter elsewhere also closes the Reject Confirmation menu without removing the TFM indication and applicable route action coding from the display.

3.2.11.2 Send AM Confirmation

The Send AM Confirmation menu (Figure 3–55) provides notification to the controller that there has been a reroute cancellation while the TFM Reroute menu, TFM Quick View menu, or Plans Display (reroute trial plan) has been open and provides the means to choose whether to continue to send or cancel an amendment. It is displayed when a pending reroute has been cancelled or replaced while the TFM Reroute menu or TFM Quick View menu is open and an amendment is sent by:

- Apply Reroute button in the TFM Quick View
- Apply Reroute button in the TFM Reroute menu
- Keyboard Enter in the TFM Reroute menu
- Selecting from the Direct-to-fix List in the TFM Reroute Menu

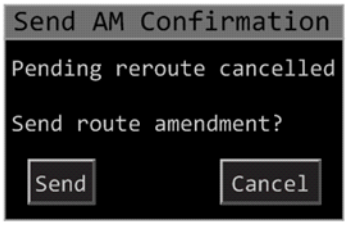


Figure 3–55. Send AM Confirmation

The Send AM Confirmation menu is also displayed when a pending reroute has been cancelled or replaced when sending an amendment (Send AM button) for a Reroute Trial Plan from the Plans Display or the Graphic Plan Display (See Section 5, *Graphic Plan Display*). The Send AM Confirmation menu

header contains the title of the menu, the message “Pending reroute cancelled” in the body of the menu, followed by “Send route amendment?” directly below the first message. The Send and Cancel buttons of the menu are displayed beneath the message. If the user selects Send, the menu and the applicable open menus are removed and the route is amended in the system. If the user selects Cancel, the Send AM Confirmation menu is removed and the applicable menu remains displayed. The amendment is not sent. The applicable menu remains displayed so that the controller has the option of reviewing the cancelled reroute and sending another amendment.

3.3 User Commands

This section provides a description of Aircraft List commands. The following commands are covered:

- Acknowledging Conflicts
- Adding/Finding an Aircraft
- Applying/Removing IAFDOF Coding
- Canceling a Hold
- Changing Restrictions
- Changing Posting Modes
- The Clean Up Command
- Creating an Amendment
- Creating a Flight Plan Message
- Creating a Trial Plan
- Creating Trial Restrictions
- Deleting an Aircraft
- Displaying previous Route Data

CAUTION

Commands entered while a channel is in Pending mode are retained if the channel is promoted from Pending to Active mode. If a channel is promoted from Pending to Backup mode, these same commands are lost.

3.3.1 Acknowledging Conflicts

The user may acknowledge all conflicts for a flight with a single command as described in the following steps:

1. Position the cursor on one of the alert boxes for a Flight ID and click the right trackball button. The Flight ID is displayed in reverse video. The Conflict Acknowledge Menu is displayed.
2. Position the cursor on the **All Conflicts Menu** button and click the left trackball button.
   a. The Conflict Acknowledge Menu is removed.
   b. Aircraft List: White color coding is applied to the alert boxes and their contents.

c. Plans Display: White color coding is applied to the problem IDs for the selected flight and to the plan id and controlling sector id (if present).

d. GPD: White color coding is applied to any alert indicators on line zero of the data block.

3. Position the cursor on the **Exit** button and click the left trackball button. The Conflict Acknowledge Menu is removed. No changes are applied to conflict coding.

To acknowledge one or more conflicts for a flight, perform the following steps:

1. Position the cursor on one of the alert boxes for a Flight ID and click the right trackball button. The Flight ID is displayed in reverse video and the Conflict Acknowledge Menu is displayed.
2. Position the cursor on a menu selection (a problem ID) and click the left trackball button. This step may be repeated for all conflicts to be acknowledged. Selection of a menu item that was previously selected will result in toggling the item back to its previous state (off/on).

   a. If the menu item currently has alert color coding (red, muted red, yellow, muted yellow, or SAA Orange), selection of the item results in the application of white coding to the characters of that selection.

   b. If the menu item is currently shown in white characters, then selection of the item results in the application of color coding to the characters appropriate to the type of alert (red, muted red, yellow, muted yellow, or SAA Orange).

3. Position the cursor on the **OK** button and click the left trackball button.

   The Conflict Acknowledge Menu is removed and the reverse video coding is removed.

   a. If all the problem IDs of a particular alert type (i.e., red, yellow, or SAA Orange) were acknowledged, then the corresponding alert box(es) and the contents of the box(es) are displayed in white.

   b. If a selection in the Conflict Acknowledge Menu is shown in red, muted red, yellow, muted yellow or SAA Orange when the OK button is selected, then the corresponding alert box(es) and the content of the box(es) are displayed in the normal alert color (red, muted red, yellow, muted yellow, or SAA Orange).

4. Position the cursor on the **Exit** button and click the left trackball button. The Conflict Acknowledge Menu is removed. No changes are applied to conflict coding.

3.3.2 Adding/Finding an Aircraft

The user may find an aircraft in the Aircraft List if the aircraft is currently in the list. If the aircraft is not in the list, the user may add an aircraft to the Aircraft List as described in the steps below:

1. Position the cursor in the Add/Find field and click the left trackball button. The text field is activated to echo keystrokes.
2. Type the desired Aircraft ID, CID, or beacon code in the entry field in the Aircraft List. The Aircraft ID, CID, or beacon code appears in the entry field in the Aircraft List.
3. Press the **Enter** key on the keyboard when typing is complete.

a. If the aircraft is in the Aircraft List, the Aircraft List is automatically scrolled, if needed, to display the entry in reverse video. If the aircraft is in the Departure List, then the Departure List is displayed on top of the stack of displays, and the entry is highlighted with selection emphasis.

b. When the posting mode is set to automatic and the user adds an entry into the Aircraft List, the entry is displayed in the Normal Posting Area in sorted order with selection emphasis () and without N coding. The list is automatically scrolled, if needed, to display the entry.

c. When the posting mode is set to manual and the user adds an entry into the Aircraft List, the entry is displayed in the Manual Posting Area with N coding. The display is automatically scrolled to the new entry. The Flight ID field of the entry is coded in reverse video.

d. If the specified aircraft has more than one active plan, the list of plans is displayed on the Plans Display and the first entry appearing on the Aircraft List in sorted order is displayed with selection emphasis.

e. If the specified aircraft has only a Proposed Flight Plan, then the Proposed Flight Plan is added to the Departure List and the Departure List is displayed on top of the display stack.

f. If the specified aircraft has more than one Departure Plan, all plans are posted to the Departure List in sorted order.

3.3.3 Applying/Removing IAFDOF Coding

When IAFDOF coding is in manual mode, the user may change the coding of the displayed altitude value via a right-click on the value. Apply/Remove IAFDOF coding in manual IAFDOF mode as described below:

a. Position the cursor on an altitude value that is currently displayed in white and click the right trackball button. Yellow color coding applied to the value.

b. Position the cursor on an altitude value that is currently displayed in yellow and click the right trackball button. The yellow color coding is removed and mustard color coding is applied to the value.

c. Position the cursor on an altitude value that is currently displayed in mustard and click the right trackball button. The mustard color coding is removed and the value is displayed in the nominal (white) character color.

3.3.4 Canceling a Hold

The descriptions in this section assume that the user is eligible to enter the cancel hold message. If the user is not eligible to enter the command, the Eligibility Menu is displayed after Cancel Hold is selected, and the following input/output rules apply.

a. Position the cursor on the Override and Send option) and click the left trackball button. The Eligibility Menu is removed. The Cancel Hold message is executed.

b. Position the cursor on the Don't Send and Exit option and click the left trackball button. The Eligibility Menu is removed, the Cancel Hold message is canceled, and the Hold Data Menu is removed from display.

The user may cancel a hold for a flight either from the Hold Data Menu or from the Cancel Hold Confirmation Menu. Hold data are deleted automatically when the hold for the flight is cancelled and Route data is displayed in the field in the ACL entry.

a. Display the Hold Data Menu via one of the methods described below.
    1. Left-click the **Flight ID** field and then left-click the Hold Menu bar button. The Flight ID field is displayed in reverse video and the Hold Data Menu is displayed.
    2. If the Hold Data column is already open and Hold data already exists for the entry, middle-click the **Hold Data** Indicator. The Hold Data Menu is displayed.
    3. If the Hold Data column is already open and Hold data does not already exist for the entry, position the trackball cursor over the blank Hold Data Indicator field (dwell emphasis is applied) and click the left or middle trackball button. The Hold Data Menu is displayed.
    4. If Hold data is already displayed in the Route field of the ACL entry, the user can left-click the **Hold data** in the entry.

b. To display the Cancel Hold Confirmation Menu:
    1. Right-click on the **Hold Data Indicator** in the ACL entry. The Cancel Hold Confirmation Menu is displayed. The cursor is positioned on the Cancel Hold button.

c. To cancel a hold for a flight, left-click the **Cancel Hold** button. The Hold for the flight is cancelled and the Hold Data Menu or the Cancel Hold Confirmation Menu is removed. Existing Hold data (holding fix, hold instructions, and the EFC time) for the flight are deleted.
    1. If the Hold data were currently displayed in the ACL entry at the time they were deleted, then the contents of the field is switched back to Route. The “H” in the Hold Data Indicator field is removed for that flight.
    2. If the brown “H”s are displayed in the alerts boxes in the ACL and in the alert fields of the GPD, these “H”s will be removed. If a brown “H” is displayed to the right of the alert boxes in the ACL, it will be removed.
    3. An Amendment Plan is created for the Hold message. The plan and the results of the Hold message are displayed on the Plans Display and the Plans Display is displayed on top of the display stack if the system returns an Error or a Reject message.

3.3.5 Changing Restrictions

For a specific aircraft, the user may activate or deactivate aircraft restrictions or revert back to the schedule on the Restrictions View. To activate aircraft restrictions for a specific flight, see Section 5.3.4.1, Activating Restrictions for a Flight. To deactivate aircraft restrictions for a specific flight, see Section 5.3.4.2, Deactivating Restrictions for a Flight. To revert restrictions back to a schedule for a flight on the Restrictions View, perform the following steps:

1. Position the cursor on the **Revert** button and click the left trackball button. (Assumes that the On or the Off button was previously selected.) The Revert button is displayed in reverse video.
2. Position the cursor on the **OK** button and click the left trackball button. The Current Restrictions Menu is removed and the prior restriction, On or Off for that aircraft, reverts back to the restriction status depicted on the Restrictions View.
    a. This change impacts only the selected aircraft Flight Plan and any future Trial Plans.

b. The Plans Display is displayed over any currently displayed window and shows the Flight Plan entry with the results of the user action.

3. Position the cursor on the **Exit** button and click the left trackball button. The Current Restrictions Menu is removed. The restriction changes for the selected aircraft are not applied.

3.3.6 Changing Posting Modes

The user can select where aircrafts are posted and the order by which they are posted in the Aircraft List View. The options for the posting mode are **Automatic** and **Manual**. When the user selects the Automatic posting mode, aircraft entries are posted in the Normal Posting Area. The order in which entries are posted in the Normal Posting Area is determined by the sort criteria the user selects from the Sort Menu, which is accessed from the Sort Menu bar button. When the user selects the Manual posting mode, aircraft entries are posted in the Manual Posting Area on the basis of the time they entered the Aircraft List. These posting areas help the user manage the Aircraft List entries. The Posting Mode toggle button on the ACL Menu Bar changes the posting mode from automatic and manual. The posting mode indicator in the ACL title bar reflects the current mode.

The Manual Posting Area is displayed at the bottom of the Aircraft List and is separated from the Normal Posting Area by two thin lines with a single blank line in between them. This line is displayed ONLY when the user has selected manual posting mode. Entries posted to the Manual Posting Area have an N in the Bookkeeping Box.

In addition to the Normal and Manual Posting Areas, the ACL can also have a **Special** posting area. The Special posting area is located at the top of the Aircraft List and is used to display entries selected by the user or overdue aircraft. This area, when displayed, is separated from the Normal Posting Area by a single tan line. This line is displayed only when an entry is displayed in the Special Posting Area. In some cases, Aircraft List entries may be moved to the Special Posting Area automatically. For example, if an aircraft is overdue, the entry is automatically moved to the Special Posting Area. It is coded with an orange box around the Flight ID to indicate its overdue status. Even after the overdue coding is removed, the entry will remain in the Special Posting Area. A user may choose to move an entry from the Special Posting Area to the Normal Posting Area at any time. However, entries that are moved out of the Manual Posting Area to the Special Posting Area or the Normal Posting Area cannot be moved back.

Within the Normal Posting Area, Visual Flight Rules (VFR) flights are posted to the bottom of the posting area (below the non-VFR flights). The VFR flights and non-VFR flights are individually sorted according to the selected sort method. Within the special posting area users have the capability to specify the location in the list of a selected entry. Only entries that are already in the special posting area of the list are eligible for this action. Entries in the special posting area display a special symbol between the UTM indicator and the Hot Box. This symbol is selected to specify the entry to be moved.

The user may set the posting mode to automatic or manual as described below:

a. Assuming the Aircraft List is in the Manual Posting Mode; Position the cursor on the Posting Mode Menu bar button and click the left trackball button. The mode indicator will change from Manual to Automatic.

    1. All aircraft entries in the Manual Posting Area are placed in the Normal Posting Area and sorted based on the current sort criteria and retain the new entry N coding.

2. All subsequent new entries will be posted in the Normal Posting Area based on the current sort criteria with the new entry coding N in the Bookkeeping box.

b. Assuming the Aircraft List is in the Automatic Posting Mode; Position the cursor on the Posting Mode Menu bar button and click the left trackball button. The mode indicator will change from Automatic to Manual. All new aircraft entries are placed in the Manual Posting Area (at the bottom of the Aircraft List) in the order in which they are received.

c. The user may also move an Aircraft List entry from the manual posting area to the Normal Posting Area by positioning the cursor in the **Bookkeeping Box** in the manual posting area of the Aircraft List and clicking the left trackball button. The aircraft entry is moved to the normal posting area (and sorted according to the selected sort criteria) of the Aircraft List and the **N** is removed from the Bookkeeping box.

3.3.7 Clean Up Command

The **Clean Up** command removes Aircraft List entries that are coded for deletion except for those that have been “Kept” by the user, or those that have an “Overdue” status. To clean up Aircraft List entries:

1. Position the cursor on the Clean Up Menu bar button.
2. Click the left trackball button. All grayed out entries are removed from the ACL, except for those that are Kept or coded as Overdue.

3.3.8 Creating an Amendment

The descriptions in this section assume that the user is eligible to enter the amendment. If the user is not eligible to enter the command, the Eligibility Menu is displayed and the following input/output rules apply:

1. Position the cursor on the Override and Send option and click the left trackball button. The Eligibility Menu is removed. The command results are executed.
2. Position the cursor on the Don’t Send and Exit option and click the left trackball button. The Eligibility Menu is removed, the amendment message is canceled, and any associated template is removed from display.

The **Template** button is available if the user selects a flight plan that is eligible to be modified by the local facility. If the selected flight plan is not eligible to be modified by the local facility, the Template button is displayed with gray background shading.

3.3.8.1 Create an Amendment (Using the Amendment Template)

The user may create an Amendment using the Amendment Template from the Aircraft List as described in the steps below:

1. Position the cursor on the Flight ID, Type, or Code field and click the left trackball button. The Flight ID, Type, or Code is displayed in reverse video. Menu bar buttons applicable to the selected entry are displayed as active.

2. Position the cursor on the Template button in the menu bar and click the left trackball button. The Amendment Template is displayed and the input box corresponding to the field that was picked is active.
3. Tab to any template field to edit/modify the value for that field. Entered text is echoed in the input field of the Amendment Template reflecting the changes made.
4. Press the **Enter** key when editing is complete or position the cursor on the Send button and click the left trackball button.
    a. If the route is modified and will result in a destination change, the AM Change Destination Menu confirmation dialog box is displayed prior to sending the amendment.
    b. Select Yes or No in the dialog box, which results in sending the amendment, or canceling the command.
5. To exit the Amend Template without saving changes, position the cursor on the Exit button and click the left trackball button. The Amendment Template is removed and no Amendment Message is entered.

Alternatively, the user may create an Amendment message without going through the Amendment Template bar button by selecting the appropriate field in the Aircraft List entry directly. Below are two descriptions for creating an Altitude Amendment message.

3.3.8.2 Create an Amendment (Using the Plan Options Menu)

The user may access an Altitude Menu to create an Amendment via the Plan Options Menu as described below:

1. Position the cursor on the Flight ID and click the left trackball button. The Flight ID is displayed in reverse video. Menu bar buttons applicable to the selected entry are displayed as active.
2. Position the cursor on the Plan Options Menu bar button and click the left trackball button. The Plan Options Menu is displayed and has the Aircraft ID displayed below the menu header.
3. Position the cursor on the Altitude Menu option and click the left trackball button. The Plan Options Menu is removed. The Altitude Menu is displayed and contains an editable entry field containing the selected altitude value.
4. Position the cursor on the Amend button and click the left trackball button. The Amend message mode is selected.

    NOTE: When the INT (assign interim altitude) button is not selected, the Delete Interim Alt Menu option is not eligible for selection (grayed out).

    NOTE: The Trial Plan button is always active when the Altitude Menu is initially brought up.

5. Position the cursor on the INT button and click the left trackball button. INT (assign interim altitude) has been selected with the Delete Interim Alt Menu option available.
6. To change Altitude, position the cursor on an altitude value from the menu and click the left trackball button to amend a Flight plan.

7. Instead of selecting a value from the menu, the user may type the desired characters over the current value in the input field and press **Enter**. The entered text is echoed in the input field on the Altitude Menu. The input field will display the value entered and the Altitude Menu is removed from the display.
   a. If the Amend message is selected (step 4), then the altitude value selected by the user and the Amendment Message is entered. The Altitude Menu is removed from the display.
   b. If the INT message is selected (step 4), then the altitude value selected by the user is entered as an interim altitude message. The Altitude Menu is removed from the display.

      NOTE: The input box in the menu will allow the user to enter an R in front of the altitude value so that an interim altitude can be entered as a reported altitude.

8. To exit this option, without creating an Altitude Amendment Message, position the cursor on the Exit button in the Altitude Menu display area and click the left trackball button. The Altitude Menu is removed. No Amendment Message is created.

3.3.8.3 Create an Amendment (Via the Altitude Field)

The user may access an Altitude Menu to create an Amendment by selecting the **altitude field** of an aircraft entry on the Aircraft List as described below:

1. Position the cursor on the Altitude field from the displayed aircraft data and click the left trackball button. The altitude field in the Aircraft List is displayed with selection emphasis and the Altitude Menu is displayed.
2. Position the cursor on the Amend button and click the left trackball button. The Amend message mode is selected.
3. Position the cursor on the INT button and click the left trackball button. INT (assign interim altitude) has been selected with the Delete Interim Alt Menu option available.
4. To change Altitude, position the cursor on an altitude value from the menu and click the left trackball button to amend a Flight Plan.
   a. If the Amend message is selected (step 2), the altitude value selected by the user and the Amendment Message is entered. The Altitude Menu is removed from the display.
   b. If the INT message is selected (step 2), the altitude value selected by the user is entered as an interim altitude message. The Altitude Menu is removed from the display.

      NOTE: The input box in the menu will allow the user to enter an R in front of the altitude value so that an interim altitude can be entered as a reported altitude.

5. Instead of selecting a value from the menu, the user may type the desired characters over the current value in the input field and press the **Enter** key. The entered text is echoed in the input field on the Altitude Menu and the input field will display the value entered.
6. To exit this option without creating an Altitude Amendment Message, position the cursor on the Exit button in the Altitude Menu display area and click the left trackball button. The Altitude Menu is removed and no Amendment Message is created.

3.3.9 Creating a Flight Plan Message

The user may create a Flight Plan message from the Aircraft List. The user accesses a template to create a Flight Plan via the **Template** button on the menu bar as described below:

1. When a flight has not been selected, position the cursor on the **Template** button in the menu bar and click the left trackball button. The Flight Plan Template is displayed and the input box for the first field (ACID) is active.
2. Tab to any template field to enter the value for that field. Entered text is echoed in the input field of the Flight Plan Template.
3. Position the cursor on the **Send** button and click the left trackball button. The populated Flight Plan Template remains while the system processes the Send command. Upon system acceptance, the Flight Plan Template is removed and an Accept message is displayed in the Plans Display.
4. To exit this option, position the cursor on the **Exit** button and click the left trackball button. The Flight Plan Template is removed and no Flight Plan Message is entered.

3.3.10 Creating a Trial Plan

The user may create a Trial Plan from the Aircraft List as described in the steps in the following subsections. The user may designate that a flight plan be probed for problems by creating a Trial Plan with no amendments. The user may specify that an adapted route be overridden when creating a Trial Plan for a route.

3.3.10.1 Create a Trial Plan (Using the Plan Options Menu)

The user may access a menu to create a Trial Plan via the Plan Options Menu as described below (the following method assumes that there is no pending TFM reroute):

1. Position the cursor on the Flight ID and click the left trackball button. The Flight ID is displayed in reverse video. Menu bar buttons applicable to the selected entry are displayed as active.
2. Position the cursor on the Plan Options Menu bar button and click the left trackball button. The Plan Options Menu is displayed and has the Aircraft ID displayed below the menu header.
3. Position the cursor on the menu option corresponding to the desired Plan modification (Altitude, Speed, or Route) and click the left trackball button. The Plan Options Menu is removed. The selected menu (Altitude, Speed, or Route) is displayed as appropriate to the user selected. The menu contains an editable entry field containing the current field value.
4. To change Altitude or Speed, or to select a Direct-to-Fix or a preferred route, position the cursor on a value from the menu and click the left trackball button. The Altitude Menu, Speed Menu, or Route Menu (depending on the type of value selected) is removed from the display.
    a. A Trial Plan is created to reflect the new value. The results of the Trial Plan are displayed on the Plans Display.
    b. The Plans Display is displayed on the top of the display stack (raised).

5. To trial a flight plan with no change, press the **Enter** key, position the cursor on the Exit button, and click the left trackball button. The Altitude, Speed, or Route Menu is removed. No Trial Plan is created.

3.3.10.2 Create a Trial Plan (Using an Aircraft List Entry Field)

Alternatively, the user may create a Trial Plan without going through the Plan Options Menu by selecting the appropriate field in the Aircraft List entry directly. Below is a description for creating a trial plan for altitude:

1. Position the cursor on the Altitude field from the displayed aircraft data and click the left trackball button. The Altitude Menu is displayed.
2. To Trial Plan an Altitude, position the cursor on a value from the menu and click the left trackball button to trial a Flight Plan.
   a. The Altitude Menu is removed from display.
   b. A Trial Plan is created to reflect a new altitude. The results of the Trial Plan are displayed on the Plans Display. The Plans Display is displayed on top of the display stack (raised).
3. Instead of selecting a value from the menu, the user may type the desired characters over the current value in the input field and press the **Enter** key.
4. To trial a flight plan with no change, press the **Enter** key, position the cursor on the Exit button, and click the left trackball button. The Altitude Menu is removed from the display and Trial Plan for the selected aircraft is not applied.

3.3.10.3 Create a Trial Plan for Route

Below are the steps for creating a trial plan for route (the method described below assumes that there is no pending TFM reroute):

1. Position the cursor on the Route field or Remarks field from the displayed aircraft data and click the left trackball button. The Route field is displayed in reverse video. The Route Menu is displayed.
2. To select a fix, position the cursor on a direct-to-fix value from the menu and click the left trackball button to amend a flight plan. The Route Menu is removed from display. A Trial Plan is created to reflect a new route. The results of the Trial Plan are displayed on the Plans Display. The Plans Display is displayed on top of the display stack (raised).

To select a preferred route, position the cursor on a selection from the Apply ATC Preferred Route portion of the menu and click the left trackball button.

To trial a flight plan with no change, the user presses the **Enter** key and positions the cursor on the Exit button in the appropriate menu display area and click the left trackball button. The Route Menu is removed from the display and Trial Plan for the selected aircraft is not applied. Reverse video coding is removed from the Route field.

3.3.10.4 Create a Pending Reroute Trial Plan

Below are the steps for creating a pending reroute trial plan.

1. Position the cursor on the Flight ID and click the left trackball button. The Flight ID is displayed in reverse video and menu bar buttons applicable to the selected entry are displayed as active.
2. Position the cursor on the “Plan Options...” menu bar button and click the left trackball button. The Plan Options menu is displayed and has the Aircraft ID displayed below the menu header.
3. Position the cursor on the “Route...” menu option and click the left trackball button. The Plan Options Menu is removed. The TFM Reroute Menu is displayed and contains an editable entry field containing the pending reroute.
4. To trial plan a pending reroute with no change, the user presses the **Enter** key on the keyboard or selects the **Apply Reroute** button. A Trial Plan is created to reflect the new value. The results of the Trial Plan are displayed on the Plans Display and the Plans Display is displayed on the top of the display stack (raised).
5. To trial plan a pending reroute with changes in the typing buffer:
    1. Route strings can be edited by clicking the left track button on the typing field to highlight selections to be overwritten or deleted, backspacing to delete, placing the cursor and typing to insert, etc. If the user just starts typing, the default placement of the cursor is in the beginning of the typing buffer and will insert text.
    2. Press the **Enter** key on the keyboard when typing is complete or select the **Apply Reroute** button.

    A Trial Plan is created to reflect the new value. The results of the Trial Plan are displayed on the Plans Display. The Plans Display is displayed on the top of the display stack (raised).
6. To select a “Direct–to–Fix” to trial plan, position the cursor on a value from the menu and left-click. A Trial Plan is created to reflect the direct-to-fix included in the reroute. The results of the Trial Plan are displayed on the Plans Display and the Plans Display is displayed on the top of the display stack (raised).

3.3.10.5 Display/Apply a Pending Reroute

If a pending reroute is sent via the Traffic Flow Management System (TFMS), a cyan “T” will be displayed in the Aircraft List along with route action coding if applicable; a cyan box surrounding the route field. The Aircraft List is the primary place to bring up the TFM Reroute Menu. This menu may be accessed from the ACL view, the Route Menu, and the TFM Quick View. While there is a pending reroute, any pick area that brings up the Route Menu will bring up the TFM Reroute Menu (e.g., GPD & Plans display Route Menu pick areas). Note that route action coding pertaining to a pending reroute is only displayed if the controller has track control (includes receiving controller during hand-off).

Below are the steps for displaying/applying a pending reroute from the TFM Reroute Menu:

1. Position the cursor on the route field within the Aircraft List and click the left trackball button. The TFM Reroute Menu is displayed with the Trial Plan Mode active. Default cursor is to the left of the “Apply Reroute” button. The typing buffer is populated with reroute data.
2. Select **ACID**. Position the cursor on the “Plan Options...” menu bar button and click the left trackball button. The Plan Options menu is displayed and has the Aircraft ID displayed below the menu header.

3. Position the cursor on the “Route...” menu option and click the left trackball button. The Plan Options Menu is removed. The TFM Reroute Menu is displayed with the Trial Plan Mode active. Default cursor is to the left of the “Apply Reroute” button. The typing buffer is populated with reroute data.
4. Left-click the **Amend** button. This places the menu in the Amend mode.
5. Optionally, the user can modify the reroute via the typing buffer: start typing or select **edit** by clicking the left track ball button on the typing field to highlight selections to be overwritten or deleted.
6. To select a “Direct–to–Fix” to trial plan, position the cursor on a value from the menu and left-click. A Trial Plan is created to reflect the direct-to-fix included in the reroute. The results of the Trial Plan are displayed on the Plans Display and the Plans Display is displayed on the top of the display stack (raised).
7. Left-click the **Apply Reroute** button or press the **Enter** key on the keyboard. The flight's route is amended. The TFM Reroute Menu is removed. If there is no protected segment in the route, the cyan “T” is removed from the ACL and flight plan readouts. If there is a protected segment in the route, a white “T” (not pickable) replaces the cyan T and the protected segment information is updated in all applicable views and menus.

Below are the steps for displaying/applying a pending reroute from the TFM Quick View:

1. Position the cursor on the cyan “T” within the Aircraft List and click the left or middle trackball button. The TFM Quick View is displayed. The default cursor position is on the “Exit” button.
2. To apply the pending reroute as is displayed; left-click the **Apply Reroute** button.
3. Position the cursor on the “Route...” menu option and click the left trackball button. The flight's route is amended. The TFM Quick View is removed. If there is no protected segment in the route, the cyan “T” is removed from the ACL and flight plan readouts. If there is a protected segment in the route, a white “T” (not pickable) replaces the cyan “T” and the protected segment information is updated in all applicable views and menus.

3.3.10.6 Reject a Pending Reroute

The following procedures allow the user to reject a pending reroute. It is assumed that the user has opened the TFM Reroute Menu (see Section 3.3.10.5, Displaying/Applying a Pending Reroute)

Below are the steps for rejecting a pending reroute from the TFM Quick View:

1. Position the cursor over the Reject button and left-click. The TFM Quick View is displayed. A Reject Confirmation menu appears to the right of the Reject button. The cursor is defaulted to between the “Yes” and “No” buttons.
2. Position the cursor over the “Yes” button on the Reject Confirmation menu and left-click. The TFM Reroute Menu is removed from the display. The cyan “T” in the ACL and Flight Plan Readouts is removed from the display along with the route action coding in the route field if there is no other applicable route action.
3. User may also select the **No** button to cancel the rejection. The Reject Confirmation menu is removed. The user may then exit the TFM Reroute Menu or apply another action.

3.3.11 Creating Trial Restrictions

The user may create a trial restriction from the Aircraft List as described in the steps below:

1. Position the cursor on a Flight ID and click the left trackball button. The Flight ID is displayed in reverse video. Menu bar buttons applicable to the selection are displayed as active.
2. Position the cursor on the Plan Options Menu bar button and click the left trackball button. The Plan Options Menu is displayed. The Aircraft ID is displayed in the menu under the title bar.
3. Position the cursor on the Trial Restrictions Menu option and click the left trackball button.
    a. Plan Options Menu is removed.
    b. Trial Restrictions Menu is displayed.
    c. Flight ID is displayed in the menu under the title bar.
    d. All restrictions in the facility that impact the selected aircraft route of flight regardless of whether or not the user has authority to change the restriction are displayed.
4. Position the cursor on the “On” button for an entry and click the left trackball button. The Trial Restrictions Menu is removed. The menu bar buttons applicable to the selected entry are displayed as inactive.
5. Position the cursor on the “Create TP” button and click the left trackball button. (The user may change more than one entry before selecting the Create TP button.) A Trial Plan is created (based on the selection) and is displayed in the Plans Display. The Plans Display is displayed on the top of the display stack (raised).
6. Position the cursor on the Off button for an entry and click the left trackball button.
7. Position the cursor on the “Create TP” button and click the left trackball button. (The user may change more than one entry before selecting the Create TP button.) A Trial Plan will be created based on the selection and is displayed in the Plans Display. The Plans Display is displayed on the top of the display stack (raised). The Trial Restrictions Menu is removed. Menu bar buttons applicable to the selected entry are displayed as inactive.
8. Position the cursor on the Exit button and click the left trackball button. No Trial Plan is created and the Trial Restrictions Menu is removed. Menu bar buttons applicable to the selected entry are displayed as inactive.

3.3.12 Deleting an Aircraft

An aircraft may be deleted from the Aircraft List using the **Implied Delete** (right trackball button) if an aircraft entry is coded gray (i.e., removal). The aircraft entry is removed from the display. If an aircraft entry is coded gray, it may be deleted from the Aircraft List using the **Select** command as described in the following steps:

NOTE: The Select command may also be used to remove an entry if the aircraft does not have an aircraft-to-aircraft alert that is assigned to the controlling sector.

1. Position the cursor on the **Flight ID** and click the left trackball button. The Flight ID is displayed in reverse video. Menu bar buttons applicable to the selected entry are displayed as active.

2. Position the cursor on the **Plan Options Menu bar** button and click the left trackball button. The Plan Options Menu is displayed.
3. Position the cursor on the **Delete Menu** option and click the left trackball button. The aircraft entry is removed from the display, menu bar buttons applicable to the selection are displayed in an inactive state, and the Plan Options Menu is removed.

3.3.13 Displaying/Applying Previous Route Data

The user can request a display of the previous route data for a Flight ID to be displayed on the Previous Route Menu. If the flight plan route has been changed and therefore has previous route data, the data is displayed. If there was a pending reroute that was associated with the previous route, the menu will display the text “Reapply pending reroute”. Once the user selects the “Apply Previous Route” button, the route is updated to the previous route and the pending reroute notification is reapplied to the display. The user now has access to the TFM Reroute Menu. If the flight plan route has not been changed and therefore has no previous route data, the user is prohibited from displaying the previous route. In this case, the Previous Route button of the Route Menu options is grayed out.

To display previous route data from the Aircraft List, perform the following steps:

1. Position the cursor on the **Route** field for an entry in the Aircraft List and click the left trackball button. The Route Menu is displayed.
2. Position the cursor on the **Previous Route** button and click the left trackball button. The Route Menu is removed. The Previous Route Menu is displayed at the top of the display stack with the cursor located between the Apply “Previous Route” button and the “Exit” button.
3. To apply the previous route, position the cursor on the **Apply Previous Route** button and click the left trackball button. The Previous Route Menu is removed.
4. To exit the menu without applying the previous route, position the cursor on the **Exit** button and click the left trackball button. The Previous Route Menu is removed.

To display previous route data using the Plan Options menu, perform the following steps:

1. Position the cursor on the **Flight ID** and click the left trackball button. The Flight ID is displayed in reverse video. Menu bar buttons applicable to the selected entry are displayed as active.
2. Position the cursor on the **Plan Options Menu Bar** button and click the left trackball button. The Plan Options Menu is displayed.
3. Position the cursor on the **Previous Route** button and click the left trackball button. The Plan Options Menu is removed. The Previous Route Menu is displayed at the top of the display stack with the cursor located between the Apply Previous Route button and the Exit button.
4. To apply the previous route, position the cursor on the **Apply Previous Route** button and click the left trackball button.
    a. The Previous Route Menu is removed.
    b. The route that is displayed on the Aircraft List is updated to the previous route and an entry is added to the Plans Display.

5. To exit the menu without applying the previous route, position the cursor on the **Exit** button and click the left trackball button. The Previous Route Menu is removed.

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4. DEPARTURE LIST VIEW

This chapter describes characteristics of the Departure List (DEP) View. Major topics are:

- Layout and Characteristics
- Associated Menus
- User Commands

4.1 Layout and Characteristics

Figure 4–1, Departure List, displays flight plan data for proposed plans and provides an interface for entering free-form text. The Departure is very similar to the Aircraft List (Section 3, *Aircraft List View*). The main difference between the two displays is that the Departure Lists plans are not probed by the system; therefore, the Departure List contains no alert boxes.

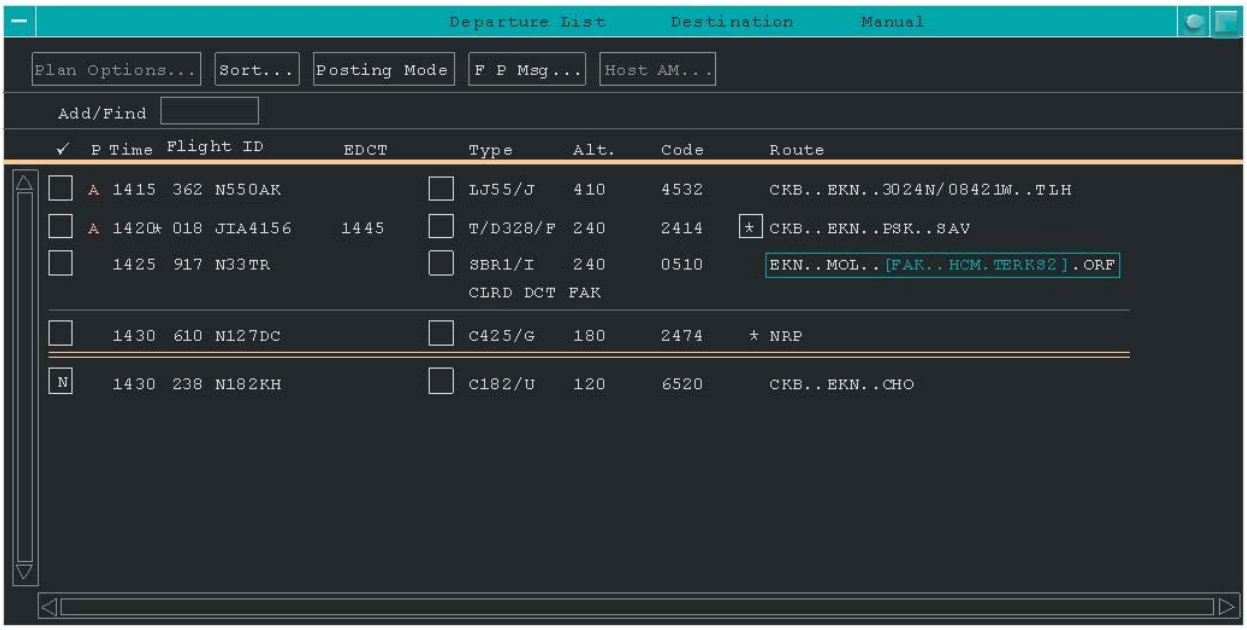

Figure 4–1. Departure List

Entries are posted in the Departure List every 30 minutes, prior to the proposed departure time. Entries are removed from the Departure List after a site adaptable period of time. The Departure List uses coding techniques to draw attention to a particular Departure List entry or one of its components. Entries are organized within the Departure List in a tabular format with columns and rows and are comprised of components and fields that will be discussed later in the chapter.

Components of the Departure List include the:

- Title Bar
- Menu Bar

- Main Display Area, including the:
  - — **Add/Find** Input Field
  - — Facilities Field

Each component is described in the following subsections.

4.1.1 Title Bar

The title bar is at the top of the Departure List and contains the following information:

- View minimize (**-**) button
- Sort order
- Posting mode
- Minimize and maximize/restore buttons

The title bar gives the user a quick reference to let him/her know what sorting criteria the Departure List is using, and the posting mode selected for the Departure List entries. Text options for the sort order are **ACID**, **Destination**, **Origin**, or **P-Time**. Options for the posting mode are **Automatic** or **Manual**.

4.1.2 Menu Bar

Figure 4–2, Departure List Menu Bar, contains four buttons that allows the user to access various command options and menus when managing flight data. A brief description of each Menu Bar function follows:

a. **Plans Option**: displays the Plan Options Menu. This menu provides the user with the option to create a trial plan, amend a flight plan, or specify an action to be taken on a Departure List entry. The Trial Departure option is the only unique option to the Departure Lists Plan Options Menu bar button.

b. **Sort**: used to access the Sort Menu. When a sort criterion is selected, the title bar of the Departure List is changed accordingly to show the new sort by selection. Sort options are only available for the Normal Posting Area.

c. **Posting Mode**: used to toggle between the automatic and manual modes for the Departure List. When a posting mode is selected, the title bar changes accordingly

d. **Template**: opens the Flight Plan Template to create a flight plan (if no entry is selected) or the Amendment Template to amend a flight plan (if an entry is currently selected).

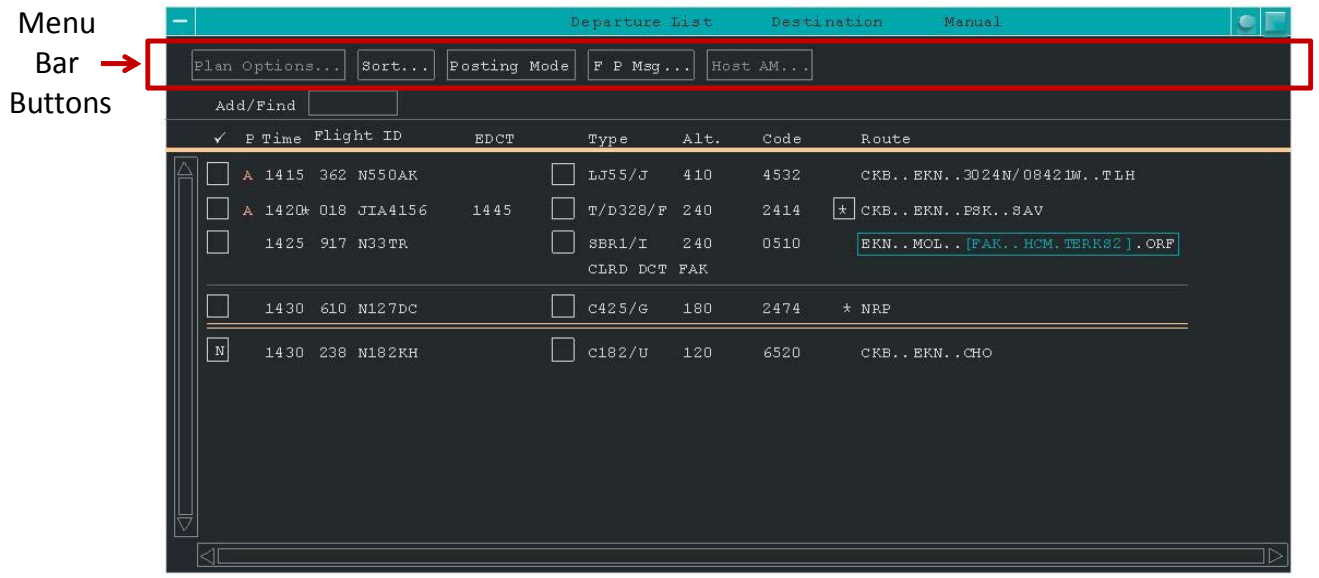

Figure 4–2. Departure List Menu Bar

Departure List Menu Bar buttons are similar to the menu bar buttons of the Aircraft List View (Section 3.1.2, Menu Bar). Each menu bar button has an **active** and **inactive** state. If a button is active, it is selectable and its text is white. If a button is inactive, that menu or option is not available for the selected flight plan. An inactive button will be displayed in gray text. An ellipsis follows the text label of a menu bar button indicate a menu is displayed when the button is selected.

4.1.3 Main Display Area

The Departure List can be separated into three areas (Manual Posting, Normal Posting, and Special Posting Areas) to help the user manage the Departure List entries. The Manual Posting Area is separated from the Normal Posting Area by a double line. If a Departure List entry were selected for special attention and new list entries were being posted under the Manual Posting Mode, the Departure List will include the Special Posting area. Within the Special Posting Area, users have the capability to specify the location in the list of a selected entry. Only entries that are already in the Special Posting Area of the list are eligible for this action. Entries in the Special Posting Area display a special symbol **(^)** between the Flight ID and EDCT indicator fields. This symbol is selected by the user to specify the entry to be moved. Figure 4–3, Departure List Main Display Area, shows the Departure List entries based on the sorting criteria and the posting mode selected.

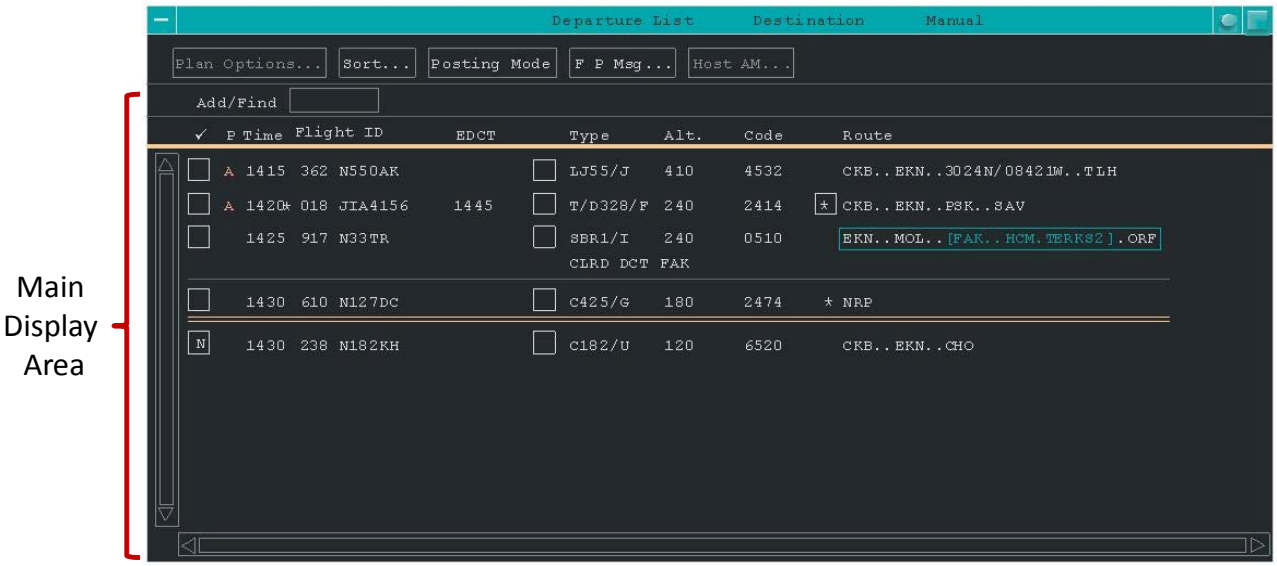

Figure 4–3. Departure List Main Display Area

The special symbols used in the Departure List are the check mark **(√)** in the bookkeeping box and the asterisk **(*)** in the Hot Box to indicate that free-form text has been entered on the second line of the aircraft entry. The Hot Box is a selection box in the Departure List that allows users to perform actions on specific list entries. These actions include opening and closing the Free-Form Text Area, moving the entry to the Special Attention Posting Area or back to the Normal Posting Area, and applying or removing highlighting. Just above the Main Display Area is the **ADD/Find** field. When the user enters an aircraft ID, computer ID, or beacon code in the Add/Find field, the corresponding aircraft appears in the Departure List with the flight ID highlighted.

The Main Display area of the Departure List View is composed of the following main fields:

- Bookkeeping (√)
- Planned Departure Time (P Time)
- Flight ID
- Expected Departure Clearance Time (EDCT)
- Type
- Altitude (Alt)
- Beacon Code (Code)
- Traffic Flow Management (TFM) Indicator
- Route

4.1.3.1 Bookkeeping, P Time, and Flight ID Fields

The first field of the Departure List Main Display is the Bookkeeping field. The **Bookkeeping** field uses a check mark **(√)** as a header. The Bookkeeping box provides a way for noting an action or indicating the display of a new entry. Immediately to the right of the Bookkeeping field is the non-Automated Dependant Surveillance-Broadcast (ADS-B) indicator. The non-ADS-B indicator consists of a coral **A** and is displayed

when the flight plan indicates that the flight is not ADS-B-equipped and that the **NON-ADSB** button in the RA-Position toolbar is currently selected. The column containing the non-ADS-B indicator may be toggled opened/closed via the NON-ADSB button on the toolbar. The ADS-B indicator column is one character in width when open. When closed, the ADS-B column is completely removed. The columns to the right of the ADS-B column shift to the left when the ADS-B column is closed, and shift to the right when it is opened. Immediately to the right of the ADS-B indicator is the P-Time column. When the non-ADS-B indicator is not displayed the P-Time column is immediately to the right of the Bookkeeping column as depicted in Figure 4–3. The P-Time column displays the proposed departure time for each Departure list entry. To the right of the P Time field is the **Flight ID** field. The Flight ID field indicates the CID and call sign for each Departure List entry.

4.1.3.2 Estimated Departure Clearance Time (EDCT) Field

When a ground hold is issued and Estimated Departure Clearance Time (EDCT) is in effect, the EDCT times or CNCL (EDCT cancel indicator) are automatically displayed in the column labeled **EDCT** next to the Flight ID field. If there is no EDCT or CNCL for any flight in the list (currently displayed or scrolled off the display, then the EDCT column will be automatically removed from the display and the Departure List data (from the Hot Box through the route field) will be shifted to the left. The EDCT column will be redisplayed when a single EDCT is added to the list and the data (from the Hot Box through the route field) will be shifted to the right.

4.1.3.3 Type and Alt Fields

The **Type** field is opened or closed (expanded/contracted) upon user command. Each aircraft entry in the Departure List can be expanded an additional row (shifting all entries downward one row) to add free-form text. The free-form text input box starts under the Type column. The Type column is one character in width when it is closed with a **T** as the column heading. Upon user action to display the Type column, the columns to the right of the Type column will shift to the right to allow display of the ten-character Type column. The columns to the right of the Type column shift to the left when the user closes the Type column.

The purpose of the **Altitude (Alt)** field is to provide the user with a method for creating a trial plan, amending a flight plan assigned altitude, or for entering an interim altitude message by selecting an altitude value from the menu options or by typing an altitude in the typing box. Altitude field parameters are described in Table 4–1, Departure List Altitude Field Descriptions. Left-clicking on the field displays the Altitude Menu. The Altitude Menu may also be accessed through the **Plan Options** Menu (refer to Section 4.2.1, Plan Options Menu).

Table 4–1. Departure List Altitude Field Descriptions

Alt Field	Description
	If the altitude text is yellow, it indicates that when departing, the users airspace, an aircraft will be at an Inappropriate Altitude for Direction of Flight (IAFDOF).
	Flights with block altitudes will also be coded with IAFDOF coding.
	If there is a coral colored box around the altitude, it indicates that the aircraft is not equipped for RVSM.

4.1.3.4 Code and TFM Fields

The **Code** field is two characters in width when it is closed with a **C** as the field heading. Upon user action to display the Code field, the columns to the right of the Code field will shift to the right to display the six-character Code field (to allow for the asterisk plus the five-character external beacon code; a 4-digit code prefixed with an **E**). The columns to the right of the Code field shift to the left when the user closes the Code column.

When the route of flight contains a TFM-protected segment, a white "**T**" is displayed in the **TFM Indicator** field. The "T" is removed when the TFM reroute is cancelled, or when an amendment is made by the controller that causes removal of the entire TFM-protected segment. The TFM indicator field is not selectable, there is no header for the field, and no color coding. The TFM Indicator field opens automatically when the flight has a TFM protected portion of the route. The field collapses automatically when there are no entries in the field.

4.1.3.5 Route Field

The **Route** field may display Route data or flight plan Remarks/Reason for Special Handling. The user may toggle between the display of the Route and Remarks/Reason for Special Handling. To display Remarks/Reason for Special Handling when they are not currently displayed, the user selects the Remarks indicator. If Remarks/Reason for Special Handling is currently displayed when the Remarks indicator is selected, the Route will be displayed in the field.

Within the Route field, sub-fields consisting of an adapted route or an embedded change in the route are color-coded in cyan with cyan brackets around the sub-field. The user may acknowledge the adapted routes (ADRs, AARs, and ADARs) or the embedded route strings by selecting within the sub-field using the trackball cursor. The route field is coded with a cyan box under the following conditions:

a. A cyan box around the entire route field with white brackets around three white "Xs". This is an indication that the system is unable to convert the route of flight past this point because of a logic error in the portion of the route within the AOR. User action is required to correct this.

b. A cyan box around the entire route field combined with cyan brackets around a cyan embedded route indicates that a preferential route needs to be issued to the aircraft.

The cyan box that surrounds the entire route field continues to be displayed until all cyan brackets within the route have been removed. The cyan box that surrounds the route may remain displayed after the user has acknowledged the sub-field if the flight is ineligible for the route. When there is an adapted route and associated clearance text, both will be bracketed with cyan brackets and be coded with cyan text. When the combined adapted route/clearance text change is acknowledged (and the acknowledgement is accepted), the cyan coding and cyan brackets will be removed from the adapted route sub-field and the cyan coding will be removed from the clearance text sub-field, but white brackets will remain. White brackets around three white “?s” is an indication that the system is unable to convert the route of flight past this point because of a logic error in the portion of the route outside the AOR.

DL entries for flights that are not eligible for the cyan coded text, cyan brackets, and Route Action Notification box surrounding the route string are displayed with muted (gray-coded) text and muted brackets. This applies for ADRs, ADARs, and AARs that have alphanumerics that are in either Field 10 format or not in Field 10 format. Muted adapted route coding contains the same textual information as the coding for an eligible flight, but the text is muted (gray) and there is no ‘route action notification’ coding (i.e., no cyan box surrounding the displayed route).

When Remarks are displayed on the Departure List, both the Remarks data and Special Handling data will be displayed. The format of the Route field when Remarks and Special Handling are displayed is as follows:

- Intrafacility Remarks: an overcast weather symbol (⊕), followed by Intrafacility remarks text, followed by a blank character delimiter.
- Special Handling: a scattered weather symbol (⏀) followed by the text from the **STS/** field, followed by a blank character delimiter, followed by Interfacility Remarks (a clear weather symbol (○) followed by Interfacility remarks text).

Following is an example of the Departure List Route field formatting:

⊕AAA ⏀CCC ○TFMID JFK22

If the route contains a TFM-protected segment that is currently displayed in the view, the route field will include:

- a white chevron **(>)** pointing to the right immediately before the beginning point of the TFM-protected portion of the route
- a white chevron **(<)** pointing to the left immediately after the end point of the TFM-protected portion of the route

See Section 3.1.3.10, Route Field, for additional information on Route field coding.

4.2 Associated Menus

The following menus may be accessed from the Departure List View:

- Plan Options
- Sort

- Flight Plan Template
- Amendment Template
- Equipment Template

A description of each menu is provided in the following subsections.

4.2.1 Plan Options Menu

The Plan Options Menu (Figure 4–4) provides the user with options to amend a flight plan. The menu is also used to specify an immediate action (eg. Keep or Delete) to be taken on a Departure List entry. The Plan Options Menu is accessed from the menu bar of the Departure List.

Figure 4–4. Plan Options Menu

The corresponding CID and the Flight ID for a selected entry appear at the top of the Plan Options Menu followed by six menu options. An ellipsis **(...)** following the text of a menu option indicates that the associated submenu is displayed when the option is selected. The absence of an ellipsis indicates that the associated action is triggered immediately when the option is selected. A brief description of each menu option follows.

1. **Altitude...**: displays the Altitude menu and provides the capability to create a trial plan, or amend an assigned or interim altitude for an aircraft (see Section 3.2.1.1, Altitude Menu, for details).
2. **Route...**: displays the Route Menu and provides the capability to create a trial plan or amend a route for a flight plan.
3. **Previous Route...**: displays the Previous Route Menu showing the previous route along with the associated Time Flow Management (TFM) protected area, if any, and provides the capability to apply the previous route to the flight plan. .
4. **Trial Departure...**: displays the Trial Departure Menu and provides the capability to create a trial plan based on time.
5. **Keep**: retains the selected aircraft entry on the Departure List.

6. **Delete**: deletes the selected Graphic Plan Display entry if there are no red or yellow alerts associated with the entry.

The Plan Options Menu cannot be resized. The nominal size is large enough to display all of the fields and buttons. To exit the menu, without selecting an option, the **EXIT** button is left-clicked.

4.2.1.1 Altitude Menu

Figure 4–5, Altitude Menu, provides the user with a method for amending a proposed flight plan requested altitude by selecting an altitude value from the menu options, or by typing an altitude in the typing box. The Altitude Menu may be accessed through the Plan Options Menu or by selecting the Altitude field in the Departure List.

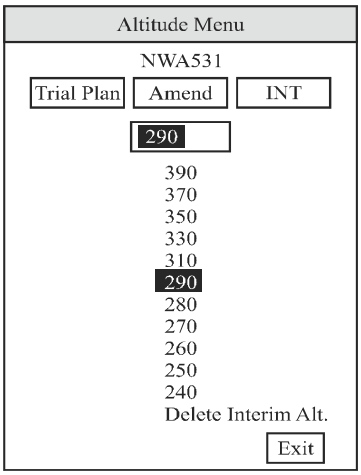

Figure 4–5. Altitude Menu

The Altitude Menu cannot be resized. The nominal size is large enough to display all of the fields and buttons.

The Amend button is pre-selected when the Altitude Menu is displayed. The first line of the menu reflects the **ACID** of the selected aircraft. Beneath the ACID are three buttons: **Trial Plan**, **Amend**, and Interim Altitude (**INT**). The Trial Plan and the INT buttons are not eligible for selection and are therefore grayed out. The menu contains selections for altitude that include altitudes above and below the assigned altitude for the flight. Altitude options are in increments of 1000 below 41,000 and in increments of 2000 above 41,000. The selection within the menu list that represents the aircrafts requested altitude is displayed in reverse video (black characters on a white background).

The input field at the top of the view also contains the requested altitude as a default value. This value is displayed in reverse video. The input field displays any keyboard input, which overwrites the previous contents of the field. Keyboard input may be entered regardless of the location of the trackball cursor within the menu.

If the Trial Plan button is selected, acceptable input consists of three digits. If the (INT) button is selected, acceptable input consists of three digits or a letter followed by three digits (e.g., R330). If the Amend button is selected, acceptable input consists of three to seven alphanumeric characters.

For Non-RVSM equipped aircraft, values at or above the lower RVSM altitude, e.g., FL290, are displayed in gray. When there is dwell emphasis on one of these altitudes, the gray coding is removed.

4.2.1.2 Route Menu

The purpose of the Route Menu is to provide the user with a method for creating a trial plan or amending a Flight Plan route of flight. The Route Menu may be accessed via the Plan Options Menu of the Departure List View or by selecting the Route field of an entry in the Aircraft List. The Route Menu may also be accessed via the Plan Options Menu of the Aircraft List. See Section 3.2.1.2, Route Menu, for more information on using the Route Menu.

4.2.1.3 Trial Departure Menu

When the Trial Departure Menu option is selected from the Plan Options Menu, the result is the display as shown in Figure 4–6, Trial Departure Menu. The Trial Departure Menu can be used to create a trial plan based on either a departure plan proposed time (P Time) or the current time (Now). The Trial Departure Menu contains the following elements:

a. **CID** and **Flight ID**: computer ID and Flight ID fields.
b. **Departure Time box**: entry field containing departure time.
c. **Plus/Minus Time buttons**: adds to or subtracts from proposed time in the entry field.
d. **P Time button**: creates a trial plan based on departure plan proposed time.
e. **Now button**: creates a trial plan based on current time.
f. **Create TP button**: creates a trial plan based on proposed time in the entry field and exits the menu.
g. **Exit button**: exits the menu without creating a Trial Plan or saving any selections that have been made.

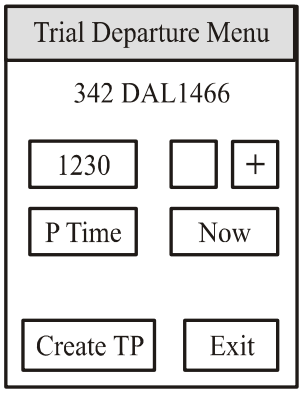

Figure 4–6. Trial Departure Menu

4.2.2 Sort Menu

Figure 4–7, Sort Menu, provides the user with a method for specifying a sort order for entries in the Normal Posting Area of the Departure List. Available selections in the Sort Menu are listed alphabetically:

- ACID
- Destination
- Origin
- P-Time

The Sort Menu is accessed from the menu bar of the Departure List.

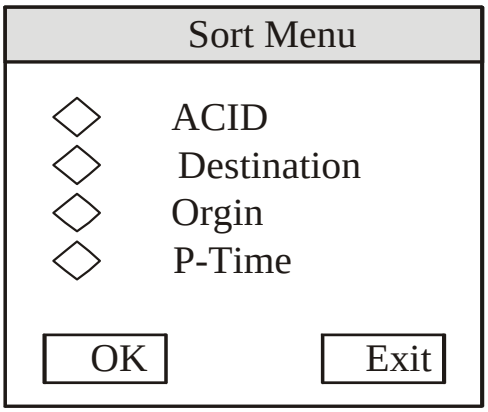

Figure 4–7. Sort Menu

The Sort Menu cannot be resized. The nominal size is large enough to display all of the menu options. A row at the bottom is reserved for the **Exit** button.

4.2.3 Flight Plan Template

See Section 3.2.6, Flight Plan Template.

4.2.4 Amendment Template

See Section 3.2.7, Amendment Template.

4.2.5 Equipment Template

See Section 3.2.8, Equipment Template.

4.3 User Commands

This section provides a description of Departure List commands. The following commands are covered:

- Adding/Finding an Aircraft
- Changing Posting Modes
- Creating an Amendment

- Creating a Flight Plan
- Deleting an Aircraft
- Displaying Previous Route Data

CAUTION

Commands entered while a channel is in Pending mode are retained if the channel is promoted from Pending to Active mode. If a channel is promoted from Pending to Backup mode, these same commands are lost.

4.3.1 Adding/Finding an Aircraft

The user may find an aircraft in the Departure List if the aircraft is currently in the list. If the aircraft is not in the list, the user may add an aircraft to the Departure List as described in the steps below:

1. Position the trackball cursor in the Add/Find and click the left trackball button. The text field is activated to echo keystrokes.
2. Type the desired Aircraft ID, CID, or beacon code in the entry field in the Departure List. The Aircraft ID, CID, or beacon code appears in the entry field in the Departure List.
3. Press the **Enter** key on the Keyboard.
    a. If the aircraft is in the list, the list is automatically scrolled, if needed, to display the entry in reverse video.
    b. If the aircraft is in the Aircraft List, then the Aircraft List is displayed on top of the stack of displays, and the entry is highlighted with selection emphasis.

4.3.2 Changing Posting Modes

The user can select where aircrafts are posted and the order by which they are posted in the Departure List. When the user selects the Automatic Posting Mode, aircraft are posted in the Normal Posting Area with automatic sort criteria applied. However, when the user selects the Manual Posting Mode, aircraft are posted in the manual posting area and sorted on the basis of the time they entered the Departure List.

There is a posting mode indicator in the Departure List title bar. The posting mode indicator reflects the current mode. The toggle button changes the posting mode from automatic and manual. The user may set the posting mode to automatic or manual as described in the steps below:

1. Assuming the Departure List is in the Manual Posting Mode, position the trackball cursor on the Posting Mode Menu bar button, and click the left trackball button.
    a. The posting mode indicator will change from Posting: Manual to Posting: Automatic.
    b. All aircraft entries in the Manual Posting Area are placed in the Normal Posting Area and sorted based on the current sort criteria and retain the new entry N coding.
    c. All subsequent new entries will be posted in the Normal Posting Area based on the current sort criteria with the new entry coding N in the Bookkeeping box.
2. Assuming the Departure List is in the Automatic Posting Mode, position the trackball cursor on the Posting Mode Menu bar button, and click the left trackball button.

a. The posting mode indicator will change from Posting: Automatic to Posting: Manual.

b. All new aircraft entries are placed in the Manual Posting Area (at the bottom of the Departure List) in the order in which they are received.

4.3.3 Creating an Amendment

This section describes the procedures for creating a flight plan Amendment from the Departure List. The user may create an Amendment message by using:

- an Amendment Template
- accessing the Altitude Menus and using the Plan Options Menu or a Departure List entry

Each method is described in the following subsections. The steps in this section assume that the user is eligible to enter the amendment.

4.3.3.1 Using the Amendment Template

The user may create an Amendment using an Amendment Template from the Departure List as described in the steps below:

1. Position the trackball cursor on the Flight ID, Type, or Code field and click the left trackball button. The Flight ID, Type, or Code is displayed in reverse video and menu bar buttons applicable to the selected entry are displayed as active.
2. Position the trackball cursor on the Template button in the menu bar and click the left trackball button. The Amendment Template is displayed and with the Aircraft ID, Number, Special Aircraft Indicator, Type, Code, Equipment Qualifier, Speed, Fix, Time, Requested Altitude, Route, and Remarks (if any) filled in and the input box corresponding to the field that was picked (i.e., Flight ID, Type, Code) is active.
3. The Amendment Template contains editable fields and the user can tab to any template field to edit/modify the value for that field. Entered text is echoed in the input field of the Amendment Template reflecting the changes made by the user (see the Display/Enter/Edit Equipment Template Values command).
4. Position the trackball cursor on the Send button and click the left trackball button (or press the **Enter** key).
5. If the user did not fill in a required field. The user can correct the necessary Amendment Template entries and repeat step 4 above.
6. The user sends an Amendment Message that the system rejects, the user can correct the Amendment Template and repeat step 4 above or position the trackball cursor on the Exit button and click the left trackball button.

4.3.3.2 Using the Plan Options Menu

The user may access an **Altitude Menu** to create an Amendment via the **Plan Options Menu** as described in the steps below:

1. Position the trackball cursor on the Flight ID and click the left trackball button. The Flight ID is displayed in reverse video. Menu bar buttons applicable to the selected entry are displayed as active.
2. Position the trackball cursor on the Plan Options Menu bar button and click the left trackball button. The Plan Options Menu is displayed and has the Aircraft ID displayed below the menu header.
3. Position the trackball cursor on the Altitude Menu option and click the left trackball button. The Plan Options Menu is removed. The Altitude Menu is displayed and contains an editable entry field containing the selected altitude value. The Amend button is active (the user is not required to select it). The Amend message mode is preselected.

   NOTE: Because the INT (assign interim altitude) button is not eligible for selection, the Delete Interim Alt Menu option is grayed out. Also, the Trial Plan button is not selectable (grayed out).

4. To change Altitude, position the trackball cursor on an altitude value from the menu and click the left trackball button to amend a Proposed plan.
5. Alternatively, instead of selecting a value from the menu, type the desired characters over the current value in the input field and press the **Enter** key to amend a Flight Plan. Entered text is echoed in the input field of the Route Menu. The amendment is entered when the user presses the **Enter** key.
6. To exit this option without creating an Altitude Amendment Message, position the trackball cursor on the Exit button in the Altitude Menu display area and click the left trackball button. The Altitude Menu is removed and no amendment Message is created.

The user may also access a **Route Menu** to create an Amendment via the Plan Options Menu as described in the steps below:

1. Position the trackball cursor on the Flight ID and click the left trackball button. The Flight ID is displayed in reverse video. Menu bar buttons applicable to the selected entry are displayed as active.
2. Position the trackball cursor on the Plan Options Menu bar button and click the left trackball button. The Plan Options Menu is displayed and has the Aircraft ID displayed below the menu header.
3. Position the trackball cursor on the **Route Menu** option and click the left trackball button. The Plan Options Menu is removed. The selected Route is displayed. The Route Menu contains an editable entry field containing the selected route value.

   NOTE: The Amend button is always active when the Route Menu is initially brought up.

4. To select a direct-to-fix or an ATC Preferred Route, position the trackball cursor over the selection box labeled **Append *** and click the left trackball button to prohibit application of an adapted route if the box was not previously selected.
5. Optionally, position the trackball cursor over the selection box labeled Append ⊕ and click the left trackball button to inhibit Equipment Restricted Route (ERR) application if the box was not previously selected.
   a. The Route Menu is removed from the display.
   b. The direct-to-fix selected by the user is inserted into the route for the Amendment Message, which is entered as a Route Amendment message.

6. To select an ATC preferred route, position the trackball cursor on a selection from the Apply ATC Preferred Route portion of the menu and click the left trackball button. The Route Menu is removed from the display. The amendment is entered.
7. Alternatively, instead of selecting a value from the menu, type the desired characters over the current value in the input field and press the **Enter** key to amend a Flight Plan. The entered text is echoed in the input field of the Route Menu and the amendment is entered when the user presses the **Enter** key.
8. To exit this option without creating a Route Amendment Message, position the trackball cursor on the **Exit** button in the Altitude Menu display area and click the left trackball button. The Route Menu is removed. The selected Flight Plan ID remains displayed in reverse video. No Amendment Message is created.

4.3.3.3 Using a Departure List Entry

The user may also access an Altitude Menu to create an Amendment by selecting the altitude field of an aircraft entry on the Departure List as described in the steps below:

1. Position the trackball cursor on the Altitude field from the displayed aircraft data and click the left trackball button. The altitude field in the Departure List is displayed with selection emphasis (reverse video). The Altitude Menu is displayed.

   NOTE: If the Template Menu bar button is subsequently picked, the Altitude Menu would be removed and the Amendment Template would be displayed with the altitude field above.

2. The Amend button is active (the user is not required to select it). The Amend message mode is preselected.

   NOTE: Because the INT (assign interim altitude) button is not eligible for selection, the Delete Interim Alt Menu option is grayed out. Also, the Trial Plan button is not selectable (grayed out).

3. To change Altitude, position the trackball cursor on a value from the menu and click the left trackball button to amend a Flight Plan. If the Amend message is selected (2), then the altitude value selected by the user and the Amendment Message is entered. The Altitude Menu is removed from the display.
4. Alternatively, instead of selecting a value from the menu, type the desired characters over the current value in the input field.
5. Press the **Enter** key. The input field will display the value entered. The input field data is displayed in normal text. The Enter key closes the command and sends the altitude to the system. The Altitude Menu is removed from the display.
6. To exit this option without creating an Altitude Amendment Message, position the trackball cursor on the Exit button in the Altitude Menu display area and click the left trackball button. The Altitude Menu is removed. The selected Flight Plan ID remains displayed in reverse video. No Amendment Message is created.

   The user may also access an Altitude Menu to create an Amendment by selecting the altitude field of an aircraft entry on the Departure List as described below.

4.3.4 Creating a Flight Plan

The user may create a Flight Plan message from the Departure List using the following steps:

1. Position the trackball cursor on the Template button in the menu bar and click the left trackball button. The Flight Plan Template is displayed and with the Aircraft ID, Number, Special Aircraft Indicator, Type, Equipment Qualifier, Code, Speed, Fix, Time, Altitude, Route, and Remarks fields blank and the input box for the first field (ACID) is active.
2. Tab to any template field to enter the value for that field. Entered text is echoed in the input field of the Flight Plan Template.
3. Position the trackball cursor on the Send button and click the left trackball button or press the **Enter** key. The populated Flight Plan Template remains while the system processes the Send command. Upon system acceptance, the Flight Plan Template is removed and an Accept message is displayed in the Plans Display.
    a. If a required field is not filled in, the user can correct the necessary Flight Plan Template entries and repeat step 3.
    b. If the Flight Plan Message is rejected by the system, the user can correct the Flight Plan Template and repeat step 3.
4. To exit this option without creating a Flight Plan, position the trackball cursor on the Exit button and click the left trackball button. The Flight Plan Template is removed thus canceling the message composition/message correction process and no Flight Plan Message is entered.

4.3.5 Deleting an Aircraft

The user may delete an aircraft from the Departure List in two ways:

1. Implied Delete
2. Using the Select Command

The steps for each method follow:

An entry may be deleted from the Departure List using the **Implied Delete** trackball button if the entry is coded gray (removal). Use the following steps to delete an aircraft from the Departure List using the Implied Delete method.

Position the trackball cursor on the Flight ID and click the right (Implied Delete) trackball button. The aircraft entry is removed from the display.

An entry may be deleted from the Departure List using the Selected Command. The Delete Menu option appears as active if an aircraft entry is gray (removal). Use the following steps to delete an aircraft from the Departure List:

1. Position the trackball cursor on the Flight ID and click the left trackball button. The Flight ID is displayed in reverse video. Menu bar buttons applicable to the selected entry are displayed as active.
2. Position the trackball cursor on the Plan Options Menu bar button and click the left trackball button. The Plan Options Menu is displayed.

3. Position the trackball cursor on the Delete Menu option and click the left trackball button. The Plan Options Menu is removed. The entry is removed from the display. Menu bar buttons applicable to the selection are displayed in an inactive state.

4.3.6 Displaying Previous Route Data

The user can request a display of the previous route data for a Flight ID to be displayed on the Previous Route Menu. If the flight plan route has been changed and therefore has previous route data, the data appears. If the flight plan route has not been changed and therefore has no previous route data, the user is prohibited from displaying the previous route. In this case, the Previous Route button of the Route Menu options is grayed out (see Figure 4–8, Previous Route Button Grayed Out).

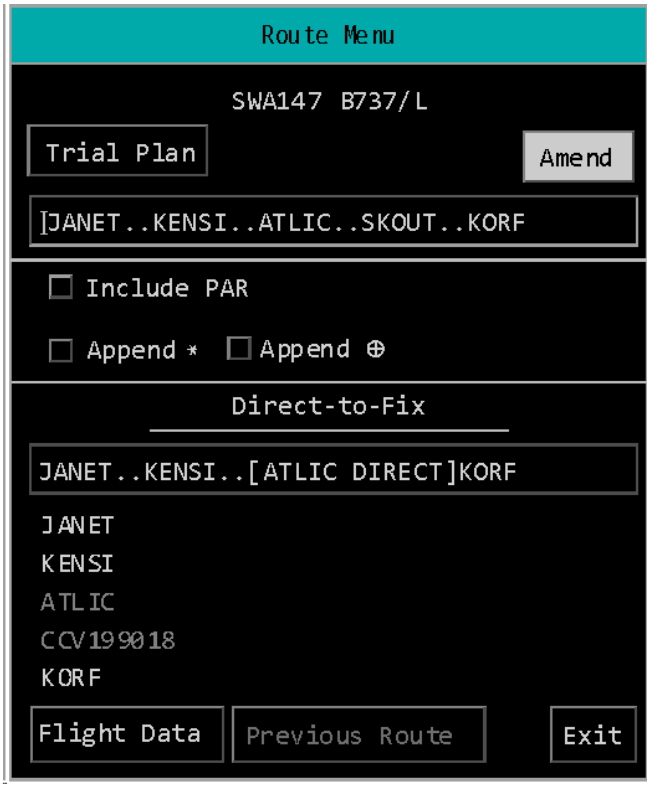

Figure 4–8. Previous Route Button Grayed Out

The steps for displaying previous route data from the Departure List using the Route Menu Method are as follows:

1. To display previous route data from the Departure List when it is not currently displayed, position the trackball cursor on the **route field** for an entry in the Departure List and click the left trackball button. The Route Menu is displayed.
2. Position the trackball cursor on the **Previous Route** button and click the left trackball button. The Route Menu is removed. The Previous Route Menu is displayed at the top of the display stack with the trackball cursor located between the “Apply Previous Route” button and the Exit button.

3. To apply the previous route, position the trackball cursor on the **Apply Previous Route** button and click the left trackball button. The Previous Route Menu is removed. The route that is displayed on the Departure List is updated to the previous route and an entry is added to the Plans Display.
4. To exit the menu without applying the previous route, position the trackball cursor on the **Exit** button and click the left trackball button.

5. GRAPHIC PLAN DISPLAY

This chapter describes characteristics of the Graphic Plan Display (GPD). Major topics covered are:

- Layout and Characteristics
- Associated Menus
- User Commands

5.1 Layout and Characteristics

Figure 5–1, Graphics Plan Display (GPD), graphically depicts Trial Plans, Flight Plans, and surrounding traffic. The user can change the scale and center point of the GPD. The GPD displays map data, symbols, and data blocks, airways, projected routes of flight, points of violation and airspace.

Components of the Departure List include the following:

- Title Bar
- Menu Bar
- Future Time Bar
- Main Display Area

Each component is described in the following subsections.

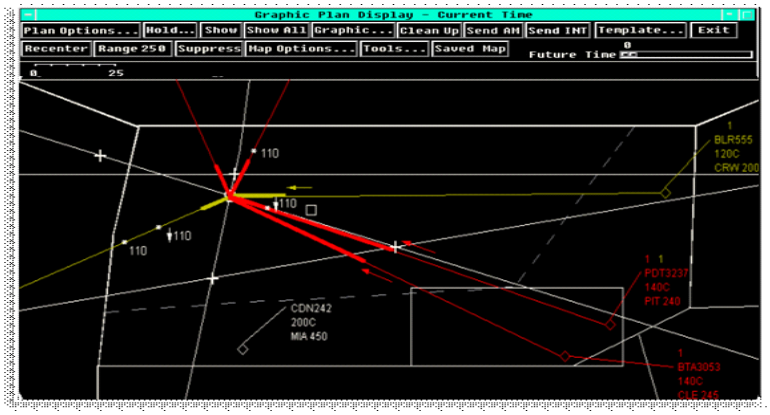

Figure 5–1. Graphics Plan Display (GPD)

In most cases, for every entry in a sector's Aircraft List, there is a corresponding flight **data block** available to view on the GPD. Data block refers to the five possible lines of data block text, a leader line, and a position symbol. At a glance, the GPD data blocks look very similar to data blocks displayed on the R-Position situation display.

CAUTION

The GPD may resemble radar, but it is not radar. The GPD uses coding techniques that will be covered throughout this chapter to draw the user's attention to a particular data block, flight plan, or one of its components.

Each GPD data block is comprised of up to five lines (Line 0 thru Line 4) of data. The following is what each line of the GPD data block represents when displayed:

a. **Line 0**: *Alert Indicators* – A number for each alert type designator (red/muted red, yellow/muted yellow, and SAA Orange) to indicate the number of alerts assigned to the sector for that aircraft. The number for each alert indicator occupies a designated position above the data block with a space between each alert indicator. The number is displayed in **white** if all conflicts of that type have been acknowledged. If the flight is not being probed by APD, a **brown X** is displayed in place of each of the alert indicators. If the flight is not being probed because of a current Stop Probe, a **brown S** is displayed in place of each of the alert indicators. If the flight is not being probed because of a current Hold, a **brown H** is displayed in place of each of the alert indicators. If the flight is not being probed because it is Commanded Frozen, a **brown F** is displayed in place of each of the alert indicators.

b. **Line 1**: Aircraft ID

c. **Line 2**: *Altitude with transition information*, as predicted by the trajectory if no interim altitude is assigned.

   1. If an interim altitude is assigned, the interim altitude, a T, and the current trajectory altitude are displayed; for example, 290T242.
   2. If an aircraft is climbing to a blocked altitude, the upper altitude and the trajectory altitude of the block is displayed (e.g., 350↑219). Once the aircraft reaches the lower altitude of the block, the block is displayed (e.g., 230B350).
   3. If an aircraft is descending to a blocked altitude, the lower altitude and the trajectory altitude of the block (e.g., 230↓370) are displayed. Once the aircraft reaches the upper altitude of the block, the line will display the blocked altitude (e.g., 230B350).
   4. If an altitude is in conformance with its assigned altitude, then a capital C is displayed in the character space that immediately follows the altitude.

d. **Line 3**: Destination and Ground Speed

   1. Destination: the first four characters are displayed in the data block.
   2. Ground Speed: as predicted by the trajectory.

e. **Line 4**: Flight Plan Assigned Altitude, Blocked Altitude, or Time at Coordination Fix

   1. Flight Plan Assigned Altitude: if an interim is assigned and the aircraft is climbing.
   2. Blocked Altitude: the following format is used if the aircraft is climbing or descending to the blocked altitude: low altitude, designator, high altitude (for example, 290B370).
   3. Time at Coordination Fix:

      a). When an aircraft's origin airport is unknown, the system builds a trajectory from the coordination fix forward. If the coordination fix is in the future, the aircraft's data block is a static display at the coordination fix and contains the time the aircraft will be at the coordination fix in the fourth line of the data block.

b). When a Trial Plan route display is requested, a second leader line is displayed and labeled with the Trial Plan ID, which consists of the aircraft ID and Trial Plan number (e.g., N40WG.T1). When the Trial plan is for a Departure Plan departure time, the Trial Plan ID includes the Computer Identification (CID) and, if the departure time is in the future, a second line that displays the departure time.

5.1.1 Title Bar

The title bar is at the top of the Departure List and contains the following information:

- Window Menu button
- Display Title (GPD)
- Time Indicator (Current or Future)
- Display minimize and maximize/restore buttons

The Current Time or Future Time is displayed after the GPD title. In the case of future time, the title also displays the future time selected along with the minutes the GPD has been moved into the future (e.g., Graphic Plan Display – Current Time or Graphic Plan Display – Future Time +5).

5.1.2 Menu Bar

The Menu Bar Buttons (Figure 5–2, GPD Menu Bar) enable the user to access various command options and menus when managing the GPD.

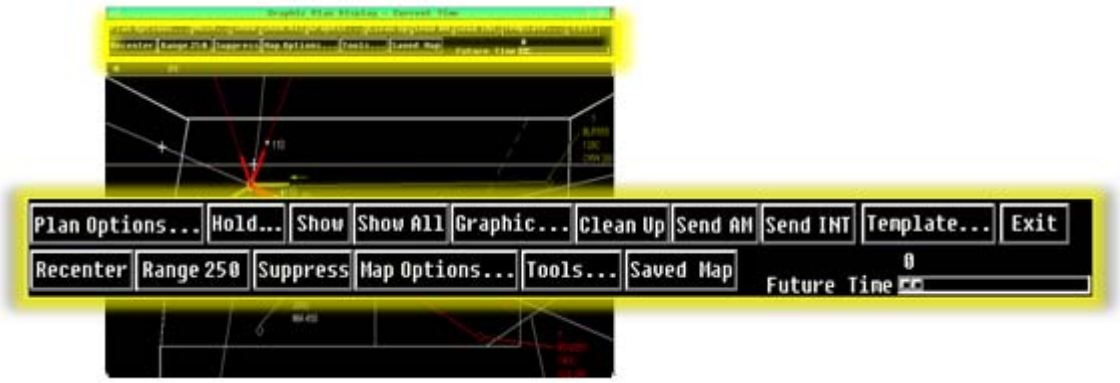

Figure 5–2. GPD Menu Bar

A description of each Menu Bar button follows:

a. **Plan Options** button displays the Plan Options Menu for the GPD. See Section 5.2.1, Plan Options Menu, for details on menu selections.

b. **Hold** button displays the Hold Data Menu. This menu is used for entering annotations such as hold location, direction, turn direction, leg length, and EFC time for the specified entry.

c. **Show** button is used to graphically display or remove a selected aircrafts current plan and any specific alert assigned to the users sector.

d. **Show All** button is used to graphically display or remove a selected aircrafts current plan and all the alerts associated with the selected aircraft.

e. **Graphic** button is used to display the Graphic Menu. Within this menu, the user can create a graphical trial plan for route amendments.

f. **Clean Up** button is used to remove projected route lines for current and trial plans as well as alerts from the GPD.

g. **Send AM** button enables the user to send an amendment to the system for a Trial Plan displayed on the GPD.

h. **Send INT** button enables the user to send an interim altitude message to the system based on a Trial Plan.

i. **Template** button opens the Flight Plan Template to create a flight plan (if no entry is selected) or the Amendment Template to amend a flight plan (if an entry is currently selected).

j. **Exit** button closes the GPD.

k. **Recenter** button enables the user to recenter the map.

l. **Range** button is used to change the scale of the GPD. Using the trackball, the user can increase or decrease the range of the GPD.

m. **Suppress/Restore** button enables the user to suppress and restore the display of data blocks on the GPD that are not displaying current or trial plan route data.

n. **Map Options** button displays the Map Options Menu. This menu provides the user with two different options for managing map and aircraft data on the GPD.

o. **Tools** button displays the Tools Menu. The Tools Menu allows the user to access four different options; airspace status, airport stream filter status, options, and restrictions.

p. **Saved Map** button enables the user to display the most recently saved Graphic Plan Display range and map center.

The GPD has the unique capability to allow the user to look at and evaluate the displayed graphical situation up to 20 minutes into the future. This can be accomplished as shown in Figure 5–3, Future Time Bar, which is located on the second row of the menu bar buttons at the far right.

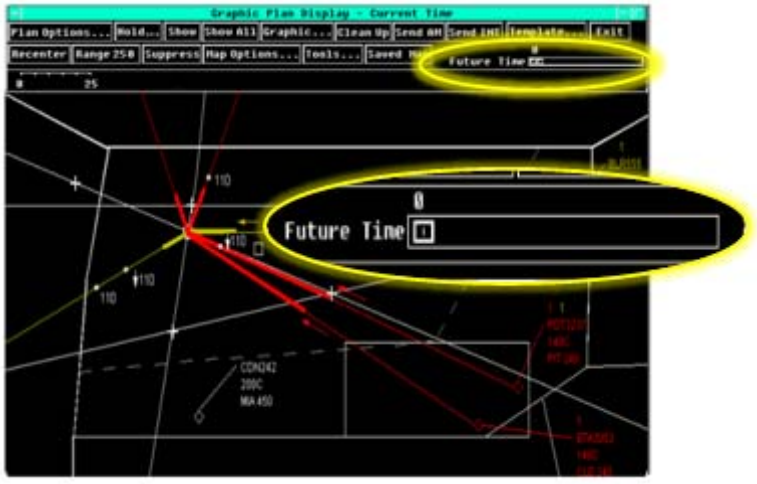

Figure 5–3. Future Time Bar

There are five increment marks on the scale. For example, if the map scale is 0-25, then the increment marks on the indicator each represent 5 NM. If the map scale is 0-50, the increment marks represent 10 NM. If the scale is 0-75, the increment marks represent 15 NM. If the user removes the scale via the Map Features Menu, then the menu bar area shrinks by one line.

The Future Time Bar works similarly to a scroll bar. Using the trackball, the user may select a future time in any of the following ways:

a. **Left-click** and hold on the slider and move it across the bar, and release it at the desired time increment.

b. **Left-click** anywhere on the Future Time Bar to move the slider towards the cursor in one-minute increments.

c. **Middle-click** anywhere on the Future Time Bar and the slider will automatically move to that time increment.

When the Future Time Bar is used to display projected GPD data at a specified time in the future, the white border around the entire GPD becomes a wider whiter border as a reminder to the user that the GPD is displaying the projected traffic in a future time. Alert coding is not impacted by future time display.

5.1.3 Main Display Area

The GPD uses a set of map symbols shown in Figure 5–4, GPD With Map Symbols, typical of air traffic control radar or situation displays. These symbols include sector boundaries, center boundaries, airports, fixes, approach control boundaries, airways, and intersections.

Figure 5–4 shows a GPD on which all the map components are labeled. In the real system, however, labels can only be displayed for fixes, intersections, airports, and special activity airspaces. There are no labels for the center, sector, airway, and approach control boundaries.

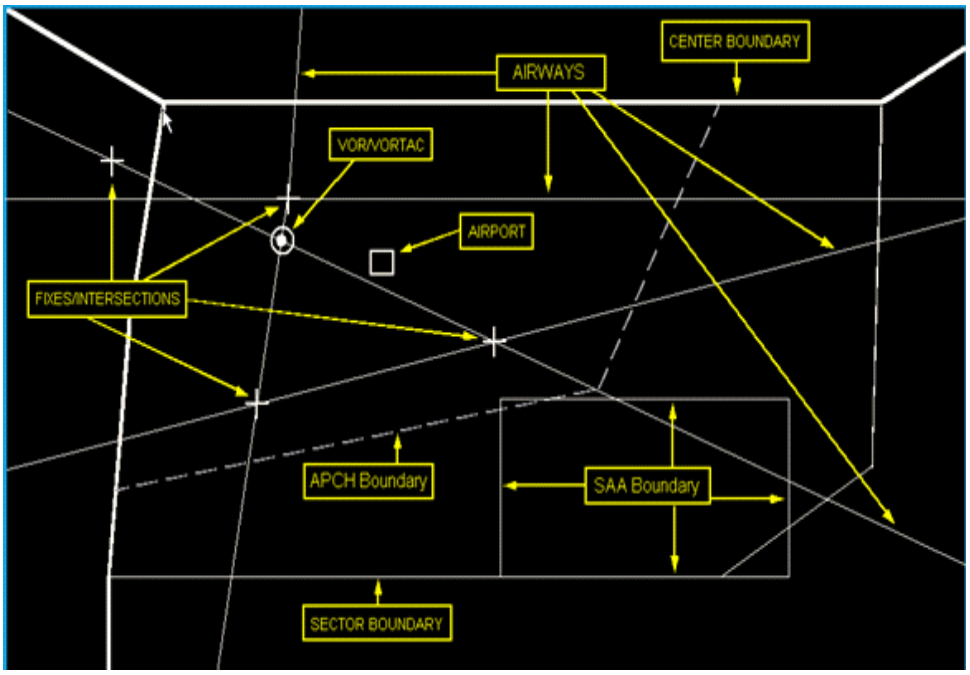

Figure 5–4. GPD With Map Symbols

Special Symbols used in the GPD include the items listed below:

a. Each aircraft is represented by a position symbol.

b. Direction of flight arrow.

c. Sector Boundaries: depicted with a white line.

d. Center Boundaries: depicted with a bold white line.

e. Airports: depicted with a white box.

f. Fixes: depicted with a white circle.

   1. **0** – Very high frequency Omni directional Range (VOR)
   2. * – Tactical Air Navigation (TACAN)
   3. **+** – Other Waypoints

g. Approach control boundaries: depicted with a dashed gray line.

h. Special Activity Airspace boundaries: depicted with a solid white line. This white line changes to orange when an airspace alert is displayed.

i. Airways: depicted with white lines.

j. Intersections: depicted with a white plus sign.

k. Chevrons  : white chevron bisected by the route line, pointing towards the protected segment of the route. Used to mark the location of the beginning and end points of the TFM-protected segment of a route.

l. For active flights, a Non-**Automated Dependant Surveillance-Broadcast (ADS-B)** indicator is displayed when the track indicates that there is no ADS-B, and the **NON-ADSB** button in the Toolbar is

currently selected. The indicator consists of a coral **A** displayed adjacent to the track symbol with a default offset of 180 degrees from the leader line. Figure 5–5, Non-ADS-B Indicator, is an example.

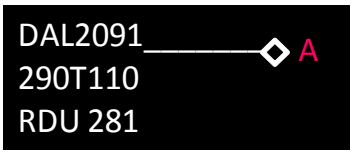

Figure 5–5. Non-ADS-B Indicator

For proposed flights, a Non-ADS-B indicator is displayed if the **NON-ADSB** button in the Toolbar is currently selected and the flight plan indicates that the flight is not ADS-B-equipped. Suppressing the data block when the Non-ADS-B indicator is displayed results in the removal of the coral A along with the data block and leader line. Restoring the data block restores the coral if the condition that triggered the indicator is still valid. A change in the state of the Non-ADS-B indicator does not force re-display of the data block. The coral A will be displayed on top of (higher display precedence) any Route Preview line segment or route display generated by a “Show” action.

5.2 Associated Menus

The following menus may be accessed from the Graphic Plan Display:

- Plan Options
- Hold Data
- Graphic
- Template
- Map Options
- Tools

A description of each menu is provided in the following subsections.

5.2.1 Plan Options Menu

Figure 5–6, Plan Options Menu, provides the user with the options to create a trial plan, amend a flight plan, initiate or cancel a Stop Probe, or enter an interim altitude. The menu is also used to specify an immediate action (e.g. Delete) to be taken on a specific entry found on the Graphic Plan Display. The Plan Options Menu is accessed from the menu bar of the Graphic Plan Display.

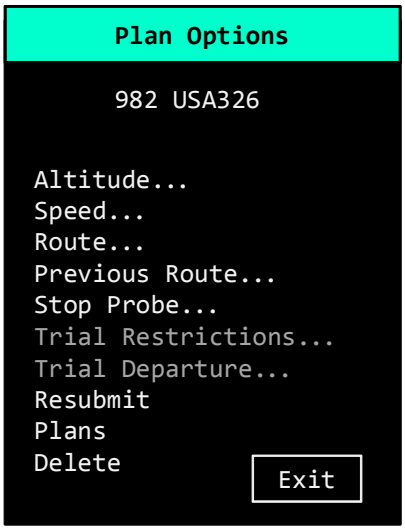

Figure 5–6. Graphic Plan Display Plan Options Menu

The corresponding CID and the Flight ID for a selected entry appear at the top of the Plan Options Menu followed by ten menu options. These options may be active or inactive for a selected entry, depending on the entry's current scenario. An ellipsis **(...)** following the text of a menu option indicates that the associated submenu is displayed when the option is selected. The absence of an ellipsis indicates that the associated action is triggered immediately when the option is selected. A brief description of each menu option follows:

1. **Altitude...**: displays the Altitude menu and provides the capability to create a trial plan, or amend an assigned or interim altitude for an aircraft.
2. **Speed...**: displays the Altitude menu and provides the capability to create a trial plan or amend an assigned or interim altitude for an aircraft.
3. **Route...**: displays the Route Menu and provides the capability to create a trial plan or amend a route for a flight plan. For additional information on the Route Menu (e.g., TFM pending reroute or protected segment coding), see Section 3.2.1.2.
4. **Previous Route...**: displays the Previous Route Menu showing the previous route along with the associated Time Flow Management (TFM) protected area, if any, and provides the capability to apply the previous route to the flight plan.
5. **Stop Probe...**: displays the Stop Probe Menu. The Stop Probe option is replaced with **Resume Probe** if the probe for the selected flight is already stopped. These menu options provide the user with the capability to suspend conflict alerts on a specific flight at its current location or at a selected fix. Selection for Stop Probe is grayed out if the flight is Automated Problem Detection (APD) ineligible, if current or future Hold is in effect for the flight, or if the flight is Commanded Frozen.
6. **Trial Restrictions...**: displays the Trial Restrictions Menu and provides the capability to activate or deactivate adapted restrictions on a trial basis for a specific entry in the Graphic Plan Display.
7. **Trial Departure...**: displays the Trial Departure Menu and provides the capability to create a trial plan based on time.
8. **Resubmit**: resubmits a Trial Plan.
9. **Plans**: displays the Plans Display with the Current Plan of the selected flight.

10. **Delete**: deletes the selected Graphic Plan Display entry if there are no red or yellow alerts associated with the entry.

The Plan Options Menu cannot be resized. The nominal size is large enough to display all of the fields and buttons. To exit the menu, without selecting an option, the **EXIT** button is left-clicked.

5.2.2 Graphic Menu

The Graphic button, on the Graphics Plan Display, displays the Graphic Menu (Figure 5–7, Graphic Menu), which allows the user to create a graphic route and/or altitude trial plan for a new route from the Graphic Plan Display (GPD). The Graphic Menu can also be accessed by right-clicking on the destination field of a full data block.

Figure 5–7. Graphic Menu

The first line of the menu (directly beneath the title bar), contains the ACID or Plan ID. Just below the ACID/Plan ID are selection boxes for **Include Preferred Arrival Route (PAR)**, **Append ***, and **Append** ⊕. PAR is the term used by the user for AARs. Below the selection boxes are columns containing rejoin fix names. Each fix that is part of the TFM-protected segment of a route is displayed with white chevrons pointing inward towards the fix name. Items with a coral underline indicate that the flight is not eligible for the item in the route. Cyan characters with a coral underline indicate that the items are part of an

uncleared Adapted Arrival route (AAR) that the flight is not eligible for. The coral coding has precedence over cyan coding.

A graphic trial plan is created by selecting geographic points on the GPD. When the proposed graphic route is complete, the user specifies the downstream fix where the flight will rejoin the route. Once the rejoin fix is selected, the system displays the graphic trial plan on the GPD.

5.2.3 Flight Plan Template

When a user selects the Template Menu bar button on the GPD and no Aircraft List entry is selected, Figure 5–8, Flight Plan Template, is displayed. This template enables the user to create a flight plan. The user fills in the required fields and left-clicks on the SEND button to submit the plan.

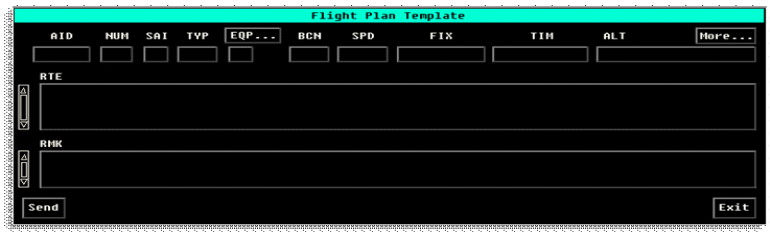

Figure 5–8. Flight Plan Template

5.2.4 Amendment Template

When a user selects an entry from the GPD and left-clicks on the Template Menu bar button, Figure 5–9, Amendment Template, is displayed. The Amendment Template provides the user with a method to amend a flight plan for the selected entry in the GPD. The flight plan data for the selected entry populates the template. See Section 3.2.7 for additional information on the Amendment Template.

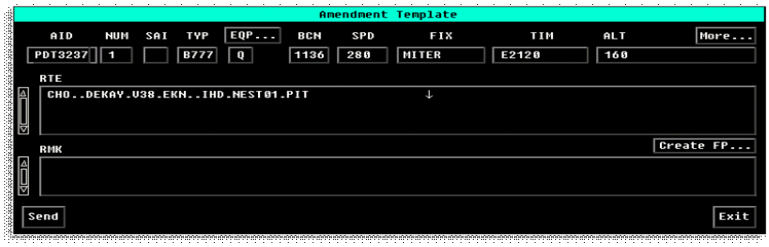

Figure 5–9. Amendment Template

5.2.5 Map Options Menu

Figure 5–10, Map Options Menu, is displayed when the user selects the **Map Options** Menu bar button. This menu provides the user with two different options for managing:

1. Map Features option: displays the Map Features Menu and allows the user to display or remove sector boundaries, adjacent center boundaries, approach control boundaries, Special Activity Airspace and airspace labels, airports, NAVAIDS, waypoints, and their associated labels.

2. AC Display Menu: allows the user to activate/deactivate features such as Aircraft List filter, altitude filter limits, automatic data block offsetting, and the route preview time.

Figure 5–10. Map Options Menu

It should be noted that exiting the GPD causes the MAP Center and range to be lost. The user may save the current GPD Range and Map Center as described here:

a. Position the cursor on the **Tools…** Menu bar button in the Graphic Plan Display and click the left trackball button. The Tools Menu is opened.

b. To save the current GPD Range and Map Center, position the cursor on the **Save GPD** Map Menu option and click the left trackball button. The Tools Menu is removed. The current range and center of the GPD map are saved and may be recalled via selection of the Saved Map button. The **Saved Map** Menu bar button becomes available for selection.

If a GPD map center and range have been saved for the position, the user may change the map to the saved parameters by positioning the cursor on the Saved Map Menu bar button and clicking the left trackball button. The range setting in the Range button is updated. The GPD map is displayed with the saved values for range and center.

5.2.6 Tools Menu

Figure 5–11, Tools Menu, is displayed when the Tools Menu bar button is left-clicked. This menu provides the user with access to the:

- Airspace Status View
- Airport Stream Filter Status Display
- Options Menu
- Restrictions Display
- Save GPD Map/Saved Map

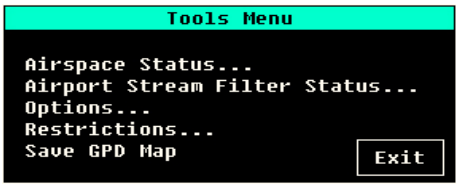

Figure 5–11. Tools Menu

The Tools Menu is divided into the following submenus:

a. **Airspace Status**: enables the user to view the current and planned use of Special Activity Airspace (SAA) up to 48 hours in advance. The user can also schedule, activate, and deactivate SAAs.

b. **Airport Stream Filter Status**: enables the user to activate or deactivate arrival or departure stream filters used to suppress alerts between aircraft going to or departing from the same airport.

c. **Options**: enables the user to enable or disable the Drop Track Delete, IAFDOF Manual, and Non-RVSM Indicator functions.

d. **Restrictions**: provides a list of altitude and/or speed restrictions imposed by the assigned sector position on surrounding sectors or centers as well as restrictions, which are imposed on the assigned sector, by surrounding sectors or centers.

e. **Save GPD Map/Saved Map**: enables users to save the current GPD Range and Map Center and also enables users to recall the last saved GPD map. The available menu option (Save GPD Map or Saved Map) depends on whether the map was saved or not. If the map wasn't saved, then "Save GPD Map" is present, if the map was saved, then "Saved Map" is present.

5.3 User Commands

This section describes the following Graphic Plan Display commands:

- Acknowledging All Conflicts
- Acknowledging Selected Conflicts
- Canceling a Hold
- Changing Current Restrictions
- Creating an Amendment
- Creating a Flight Plan
- Creating a Trial Plan

CAUTION

Commands entered while a channel is in Pending mode are retained if the channel is promoted from Pending to Active mode. If a channel is promoted from Pending to Backup mode, these same commands are lost.

5.3.1 Acknowledging All Conflicts

The user may acknowledge all conflicts for a flight with a single command by using the following steps:

1. Position the cursor on an alert indicator and click the right trackball button. The alert indicator is displayed in reverse video. The Conflict Acknowledge Menu is displayed.
2. Position the cursor on the All Conflicts Menu button and click the left trackball button. The Conflict Acknowledge Menu is removed and reverse video coding is removed from the alert indicator.
   a. **Aircraft List**: white color coding is applied to the alert boxes and their contents.
   b. **Plans Display**: white color coding is applied to the problem IDs for the selected flight and to the plan id and the controlling sector id (if present).

c. **GPD**: white color coding is applied to any alert indicators on line zero of the data block.

3. Position the cursor on the Exit button and click the left trackball button. The Conflict Acknowledge Menu is removed. No changes are applied to conflict coding.

5.3.2 Acknowledging Selected Conflicts

The user may acknowledge one or more conflicts for a flight by using the following steps:

1. Position the cursor on an alert indicator and click the right trackball button. The alert indicator is displayed in reverse video. The Conflict Acknowledge Menu is displayed.
2. Position the cursor on a menu selection (a problem ID) and click the left trackball button. This step may be repeated for all conflicts to be acknowledged. Selection of a menu item that was previously selected will result in toggling the item back to its previous state (off/on).
   a. If the menu item currently has alert color coding (red, muted red, yellow, muted yellow, or SAA Orange) then selection of the item results in the application of white coding to the characters of that selection.
   b. If the menu item is currently shown in white characters, then selection of the item results in the application of color coding to the characters appropriate to the type of alert (red, muted red, yellow, muted yellow, or SAA Orange).
3. Position the cursor on the OK button and click the left trackball button. The Conflict Acknowledge Menu is removed and reverse video coding is removed from the alert indicator.
   a. **Aircraft List**: If all the problem IDs of a particular alert type (i.e., red, yellow, or SAA Orange) were acknowledged, then the corresponding alert box(es) and the contents of the box(es) are displayed in white. If a selection in the Conflict Acknowledge Menu is shown in red, muted red, yellow, muted yellow or SAA Orange when the OK button is selected, then the corresponding alert indicator in the data block is displayed in the normal alert color (red, muted red, yellow, muted yellow, or SAA Orange).
   b. **Plans Display**: White color coding is applied to the characters of the problem IDs that were displayed in white in the Conflict Acknowledge Menu when the OK button was selected. If a selection in the Conflict Acknowledge Menu is shown in red, muted red, yellow, muted yellow or SAA Orange when the OK button is selected, then the corresponding problem is displayed in the normal alert color (red, muted red, yellow, muted yellow, or SAA Orange).
   c. **GPD**: If all the problem IDs of a particular alert type (i.e., red, yellow, SAA Orange) were acknowledged, then the corresponding alert indicator(s) in line zero of the data block are displayed in white. If a selection in the Conflict Acknowledge Menu is shown in red, muted red, yellow, muted yellow or SAA Orange when the OK button is selected, then the corresponding alert indicator in the data block is displayed in the normal alert color (red, muted red, yellow, muted yellow, or SAA Orange).
4. Position the cursor on the Exit button and click the left trackball button. The Conflict Acknowledge Menu is removed. No changes are applied to conflict coding.

5.3.3 Canceling a Hold

The descriptions in this section assume that the user is eligible to enter the cancel hold message. If the user is not eligible to enter the command, then the Eligibility Menu is displayed after Cancel Hold is selected, and the following input/output rules apply:

a. Position the cursor on the Override and Send option and click the left trackball button. The Eligibility Menu is removed. The Cancel Hold message is executed.

b. Or, position the cursor on the Don't Send and Exit option and click the left trackball button. The Eligibility Menu is removed, the Cancel Hold message is canceled, and the Hold Data Menu is removed from display.

Hold indicators in the alert field of the GPD are removed when a hold is cancelled. Hold data are deleted automatically when the hold for the flight is cancelled, and Route data is displayed in the field in the Aircraft List. Use the following steps to cancel a hold for a flight:

1. Position the cursor on the ACID field in the GPD data block and click the left trackball button and then positions the cursor on the Hold Menu bar button and click the left trackball button. The ACID field in the GPD data block is displayed in reverse video. The Hold Data Menu is displayed.
2. Position the cursor on the Cancel Hold button and click the left-trackball button. The hold for the flight is cancelled. The Hold Data Menu is removed. Existing Hold data (holding fix, hold instructions and the EFC time) for the flight are deleted.
    a. If the Hold data were currently displayed in the ACL entry at the time they were deleted, then the contents of the field is switched back to Route. The H in the Hold Data Indicator field is removed for that flight.
    b. If the brown Hs are displayed in the alerts boxes in the ACL and in the alert fields of the GPD, these Hs will be removed. If a brown H is displayed to the right of the alert boxes in the ACL, it will be removed.
    c. An Amendment Plan is created for the Hold message. The plan and the results of the Hold message are displayed on the Plans Display and the Plans Display is displayed on top of the display stack if the system returns an Error or a Reject message.

5.3.4 Changing Current Restrictions

For a specific aircraft, the user may activate or deactivate aircraft restrictions or revert to the schedule on the Current Restrictions Display. Each method for changing restrictions is described in the following subsections.

5.3.4.1 Activating Restrictions for a Flight

Use the following steps to activate restrictions for a flight:

1. The user positions cursor on an ACID and clicks the left trackball button. The ACID is displayed in reverse video in the Graphic Plan Display. Menu bar buttons applicable to the selection are displayed as active.
2. Position the cursor on the Tools Menu bar button and click the left trackball button. The Tools Menu is displayed.

3. Position the cursor on the Restrictions Menu option and click the left trackball button. The Current Restrictions Menu is displayed with all restrictions in the facility that could impact the selected aircrafts route of flight and that the user is eligible to change.
4. Position the cursor on the On button for an entry and click the left trackball button. The On button is shown in reverse video.
5. Position the cursor on the OK button and click the left trackball button.
    a. The Current Restrictions Menu is removed.
    b. The selected restriction is turned on, overriding any system restriction previously applied. This change impacts only the selected aircraft Flight Plan and any future Trial Plans.
    c. The Plans Display is displayed over any currently displayed window and shows the Flight Plan entry with the results of the user action.
6. Position the cursor on the Exit button and click the left trackball button. The Current Restrictions Menu is removed. The restriction changes for the selected aircraft are not applied.

5.3.4.2 Deactivating Restrictions for a Flight

Use the following steps to deactivate restrictions for a flight:

1. Position the cursor on an ACID and click the left trackball button. The ACID is displayed in reverse video in the Graphic Plan Display. Menu bar buttons applicable to the selection are displayed as active.
2. Position the cursor on the Tools Menu bar button and click the left trackball button. The Tools Menu is displayed.
3. Position the cursor on the Restrictions Menu option and click the left trackball button. The Current Restrictions Menu is displayed with all restrictions in the facility that could impact the selected aircrafts route of flight and that the user is eligible to change.
4. Position the cursor on the Off button for an entry and click the left trackball button. The Off button is shown in reverse video.
5. Position the cursor on the OK button and click the left trackball button.
    a. The Current Restrictions Menu is removed.
    b. The selected restriction is turned off. This change impacts only the selected aircraft Flight Plan and any future Trial Plans.
    c. The Plans Display is displayed over any currently displayed window and shows the Flight Plan entry with the results of the user action.
6. Position the cursor on the Exit button and click the left trackball button. The Current Restrictions Menu is removed. The restriction changes for the selected aircraft are not applied.

5.3.4.3 Reverting Restrictions Back to Schedule

Use the following steps to revert restrictions back to schedule for a flight:

1. Position the cursor on the Revert button and click the left trackball button. (Assumes that the On or the Off button was previously selected.) The Revert button is shown in reverse video.
2. Position the cursor on the OK button and click the left trackball button.
   a. The Current Restrictions Menu is removed.
   b. The prior restriction, On or Off for that aircraft Reverts back to the restriction status depicted on the Restrictions View. This change impacts only the selected aircraft Flight Plan and any future Trial Plans.
   c. The Plans Display is displayed over any currently displayed window and shows the Flight Plan entry with the results of the user action.
3. Position the cursor on the Exit button and click the left trackball button. The Current Restrictions Menu is removed. The restriction changes for the selected aircraft are not applied.

5.3.5 Creating an Amendment

The descriptions in this section assume that the user is eligible to enter the amendment. If the user is not eligible to enter the command, then the Eligibility Menu is displayed, and the following input/output rules apply:

a. Position the cursor on the Override and Send option and click the left trackball button. The Eligibility Menu is removed. The command results (as documented per individual description in Section 3.3.8, Creating an Amendment) are executed.
b. Or, Position the cursor on the Don't Send and Exit option and click the left trackball button. The Eligibility Menu is removed, the amendment message is canceled, and any associated template is removed from display.

The Template Menu bar button is available if the user selects a flight plan that is eligible to be modified by a local facility. If the selected flight plan is not eligible to be modified by a local facility, then the Template Menu bar button is displayed with gray background shading. The user may create an Amendment using an Amendment Template from the GPD as described in the steps below.

NOTE: For additional information on creating an amendment, see Section 3.3.8.

5.3.5.1 Using the Template Button

The following steps describe the use of the Template Button:

1. Position the cursor on the Flight ID (or leader line or position symbol) and click the left trackball button. The Flight ID is displayed in reverse video. Menu bar buttons applicable to the selected entry are displayed as active.
2. Position the cursor on the Template button in the menu bar and click the left trackball button. The Amendment Template is displayed with the Aircraft ID, Number, Special Aircraft Indicator, Type, Equipment Qualifier, Code, Speed, Fix, Time, Assigned Altitude, Route, and Remarks (if any) filled in and the input box corresponding to the field that was picked (i.e., Flight ID) is active.
3. Tab to a template field to edit/modify the value for that field. Entered text is echoed in the input field of the Amendment Template reflecting the changes made by the user (see the Display/Enter/Edit Equipment Values command).

4. Press the **Enter** key or position the cursor on the Send button and click the left trackball button.
   a. If the route is modified and will result in a destination change, an AM Change Destination Menu confirmation dialog box is displayed prior to sending the amendment.
   b. Select Yes or No in the dialog box, resulting in sending the amendment, or canceling the command.
5. To cancel this option the user can position the cursor on the Exit button and click the left trackball button. The Amendment Template is removed thus canceling the message composition/message correction process and no Amendment Message is entered.

5.3.5.2 Using the GPD Data Block

Alternatively, the user may create an Amendment message without going through the Template Menu bar button by selecting the appropriate field in the GPD data block directly. Below are two descriptions for creating an altitude Amendment message.

The user may access an **Altitude Menu** to create an Amendment or an Interim Altitude message via the Plan Options Menu as described below:

1. Position the cursor on the ACID and click the left trackball button.
2. The ACID is displayed in reverse video. Menu bar buttons applicable to the selected entry are displayed as active.
3. Position the cursor on the Plan Options Menu bar button and click the left trackball button. The Plan Options Menu is displayed and has the Flight ID displayed below the menu header.
4. Position the cursor on the Altitude. Menu option and click the left trackball button. The Plan Options Menu is removed. The Altitude Menu is displayed and contains an editable entry field containing the selected altitude value.
5. Position the cursor on the Amend button and click the left trackball button.

   NOTE: The Trial Plan button is always active when the Altitude Menu is initially brought up. The Amend message mode is selected. When the INT (assign interim altitude) button is not selected, then the Delete Interim Alt Menu option is not eligible for selection (grayed out).

6. Position the cursor on the **INT** button and click the left trackball button. INT (assign interim altitude) has been selected with the Delete Interim Alt Menu option available.
7. To change Altitude, position the cursor on an altitude value from the menu and click the left trackball button to amend a flight plan. If the Amend message is selected, then the Amendment Message is entered. The Altitude Menu is removed from the display. Upon acceptance, the amendment altitude is reflected in the data block in the GPD.

   NOTE: The input box in the menu will allow the user to enter an R in front of the altitude value so that an interim altitude can be entered as a reported altitude.

   

8. Instead of selecting a value from the menu, the user may also type the desired characters over the current value in the input field.

a. Entered text is echoed in the input field on the Altitude Menu.

b. The input field will display the value entered. The Enter key closes the command and enters the altitude amendment. Upon acceptance, the amended altitude or Interim Altitude is reflected in the Aircraft List and the data block of the GPD.

c. The Altitude Menu is removed from the display.

9. To amend a flight plan, press the **Enter** key.

10. To exit this option without creating an Altitude Amendment Message, position the cursor on the Exit button in the Altitude Menu display area and click the left trackball button. The Altitude Menu is removed. The selected flight plan ID remains displayed in reverse video. No Amendment Message is created.

The user may also access an Altitude Menu to create an Amendment or an Interim Altitude Message by selecting the altitude field of an aircraft entry on the GPD as described below:

1. Position the cursor on the Altitude field in the data block and click the left trackball button. The altitude field in the GPD data block is displayed in reverse video. The Altitude Menu is displayed.

   NOTE: If the Template Menu bar button is subsequently picked, the Altitude Menu would be removed and the Amendment Template would be displayed with the altitude field active.

2. Position the cursor on the Amend button and click the left trackball button.

   NOTE: The Trial Plan button is always active when the Altitude Menu is initially brought up.

3. The Amend message mode is preselected.

4. Position the cursor on the INT button and click the left trackball button. INT (assign interim altitude) has been selected with the Delete Interim Alt Menu option available.

   NOTE: When the INT (assign interim altitude) button is not selected, the Delete Interim Alt Menu option will be grayed out.

5. To change Altitude, Position the cursor on a value from the menu and click the left trackball button to amend a flight plan.

   a. If the Amend message is selected then the Amendment Message is entered. The Altitude Menu is removed. Upon acceptance, the amendment altitude is reflected in the Aircraft List and in the data block of the GPD.

   b. If the INT message is selected then the altitude value selected by the user is entered as an interim altitude message. The Altitude Menu is removed from the display. Upon acceptance, the interim altitude is reflected in the Aircraft List and the data block of the GPD.

      NOTE: The input box in the menu will allow the user to enter an R in front of the altitude value so that an interim altitude can be entered as a reported altitude.

6. Instead of selecting a value from the menu, the user may type the desired characters over the current value in the input field and press the **Enter** key.

a. Entered text is echoed in the input field on the Altitude Menu. The input field will display the value entered. Upon acceptance, the amendment route is reflected in the Aircraft List.

b. The Altitude Menu is removed from the display.

NOTE: Regardless of the input method (menu or typing), the results of the Amendment Message and the Interim Altitude Message are displayed on the Plans Display and the Plans Display is displayed on top of the display stack if the system returns an Error or a Reject message.

7. To exit this option without creating an Altitude Amendment Message, position the cursor on the Exit button in the Altitude Menu display area and click the left trackball button. The Altitude Menu is removed. The selected altitude field remains displayed in reverse video. No Amendment Message or Interim Altitude Message is created.

5.3.6 Creating a Flight Plan

The user may create a Flight Plan message from the GPD as described below. The user accesses a template to create a Flight Plan via the Template button on the menu bar. Use the following steps to create a flight plan:

1. Position the cursor on the Template button in the menu bar and click the left trackball button. The Flight Plan Template is displayed and with the Aircraft ID, Number, Special Aircraft Indicator, Type, Equipment Qualifier, Code, Speed, Fix, Time, Altitude, Route, and Remarks fields blank and the input box for the first field (ACID) is active.
2. Tab to any template field to enter the value for that field. Entered text is echoed in the input field of the Flight Plan Template (see the Display/Edit/Enter Equipment Template Values command).
3. Position the cursor on the Send button and click the left trackball button, or press the **Enter** key when typing is completed.
   a. The populated Flight Plan Template remains displayed while the system processes the Send command.
   b. Upon system acceptance, the Flight Plan Template is removed and an Accept message is displayed in the Plans Display.

   NOTE: For system Accept messages, the Plans Display is not forced to the top of the stack.
4. To exit this option, position the cursor on the Exit button and click the left trackball button. The Flight Plan Template is removed thus canceling the message composition/message correction process and no Flight Plan Message is entered.

5.3.7 Creating a Trial Plan

The user may create Trial Plans from the GPD based on a Flight Plan or an existing Trial e.g., to change an altitude that was trialed and found to have a problem, or to add an altitude change to a route change. The user may designate that a flight plan be probed for problems by creating a Trial Plan with no amendment.

5.3.7.1 Create a Trial Plan (Using the Plan Options Menu)

The user may create a Trial Plan from the GPD via the Plan Options Menu. This method assumes that there is no pending TFM reroute. See Section 3.3.10.1, Create a Trial Plan (Using the Plan Options Menu), for additional information on procedures.

5.3.7.2 Create a Trial Plan for Altitude

Alternatively, the user may create a Trial Plan without going through the Plan Options Menu by selecting the appropriate field in the GPD data block directly. Use the following steps for creating a trial plan for altitude:

1. Position the cursor on the Altitude field in the data block and click the left trackball button. The selected field is displayed in reverse video. The Altitude Menu is displayed, with Trial Plan button active.
2. To Trial Plan an Altitude, position the cursor on an altitude value from the menu and click the left trackball button to trial a Flight Plan

3. Instead of selecting a value from the menu, the user may type the desired characters over the current value in the input field and press the **Enter** key.
   a. The Altitude Menu is removed from display.
   b. A Trial Plan is created to reflect a new altitude.
   c. The results of the Trial Plan are displayed on the GPD and on the Plans Display. The Plans Display is displayed on the top of the display stack (raised).
4. To trial a flight plan with no change, the user presses the **Enter** key on the keyboard.
5. Position the cursor on the Exit button in the Altitude Menu display area and click the left trackball button. The Altitude Menu is removed from the display and Trial Plan for the selected aircraft is not applied.

5.3.7.3 Create a Trial Plan for Route

Alternatively, the user may create a Trial Plan without going through the Plan Options Menu by selecting the appropriate field in the GPD data block directly. Use the following steps for creating a trial plan for route (the method described assumes that there is no pending TFM reroute):

1. Position the cursor on the Destination field in the data block and click the left trackball button. The selected field is displayed in reverse video. The Route Menu is displayed, with the Trial Plan button active.
2. To select a Direct-to-Fix route, position the cursor on a value from the menu and click the left trackball button to trial a Flight Plan or a Trial Plan.
   a. The Route Menu is removed from display.
   b. A Trial Plan is created to reflect the new route.

c. The results of the Trial Plan are displayed on the GPD and the Plans Display. The Plans Display is displayed on the top of the display stack (raised).

3. To exit this option, position the cursor on the Exit button in the Route Menu display area and click the left trackball button. The Route Menu is removed from the display and Trial Plan for the selected aircraft is not applied.

5.3.7.4 Create a Trial Plan for Speed

Alternatively, the user may create a Trial Plan without going through the Plan Options Menu by selecting the appropriate field in the GPD data block directly. Use the following steps for creating a trial plan for speed:

1. Position the cursor on the Speed field in the data block and click the left trackball button. The selected field is displayed in reverse video. The Speed Menu is displayed.
2. To Trial Plan a speed, position the cursor on a speed value from the menu and click the left trackball button to trial a Flight Plan or a Trial Plan.
3. Instead of selecting a value from the menu, the user may type the desired characters over the current value in the input field and press the **Enter** key.
4. To trial a flight plan press the **Enter** key on the keyboard. The Speed Menu is removed from display. A Trial Plan is created to reflect the new value. The results of the Trial Plan are displayed on the GPD and the Plans Display. The Plans Display is displayed on the top of the display stack (raised).
5. To exit the option without making changes, position the cursor on the Exit button in the Speed Menu display area and click the left trackball button. The Speed Menu is removed from the display and Trial Plan for the selected aircraft is not applied.

5.3.7.5 Display/Apply a Pending Reroute

See Section 3.3.10.5.

NOTE: While there is a pending reroute, any pick area that brings up the Route Menu will bring up the TFM Reroute Menu (e.g., GPD & Plans display Route Menu pick areas).

5.3.8 Displaying/Applying Previous Route Data

See Section 3.3.13, Displaying/Applying Previous Route Data.

5.3.9 Rejecting a Pending Reroute

The following procedures allow the user to reject a pending reroute. It is assumed that the user has opened the TFM Reroute Menu (See Section 3.3.10.5. See Section 3.3.10.6, Reject a Pending Reroute, for detailed procedures for rejecting a pending reroute.

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6. PLANS DISPLAY

This chapter describes characteristics of the Plans Display (PD). Major topics are:

- Layout and Characteristics
- Associated Menus
- User Commands

6.1 Layout and Characteristics

The Plans Display (Figure 6–1, Plans Display), can display the following:

- Flight Plans (invoked from either the Aircraft List or Graphic Plan Display)
- Proposed Plans (created from the Departure List)
- Trial Plans (created from either the Aircraft List, Departure List, Graphic Plan Display, or Plans Display)
- Amendment Plans (created from either the Aircraft List, Departure List, Graphic Plan Display or Plans Display)
- Previous Route Plans or Flight Data Readouts

The Plans Display can also be used to create trial plans (altitude, speed, or route changes), trial restrictions, trial departures, resubmit trial plans, show aircraft route of flight information on the Graphic Plan Display, or enter an amendment. Plan entries can be deleted from the Plans Display by the user.

When requested, the system displays an aircraft's current plan on the Plans Display. Current Plans are coded with any alerts the system detects and includes the Plan ID. The Plan ID consists of the Computer Identifier (CID), The Aircraft Identifier (ACID), and the control designator if the flight is under the control of another sector or an unknown sector. Coordination messages are displayed beneath the Plan ID.

For a flight plan readout in the Plans Display, when the basis plan is an Area of Interest (AOI) flight plan and an Area of Responsibility (AOR) system plan also exists for the flight, the Computer Identification (CID) field in the AOI flight plan entry contains the CID/source facility identifier (e.g., 123/ZOB) while the AOR flight plan entry contains only the CID. In the case of multiple flight plans for the same flight, when the basis plan is an AOR flight, the CID field in the basis plan and any non-basis AOR plan(s) contains the CID.

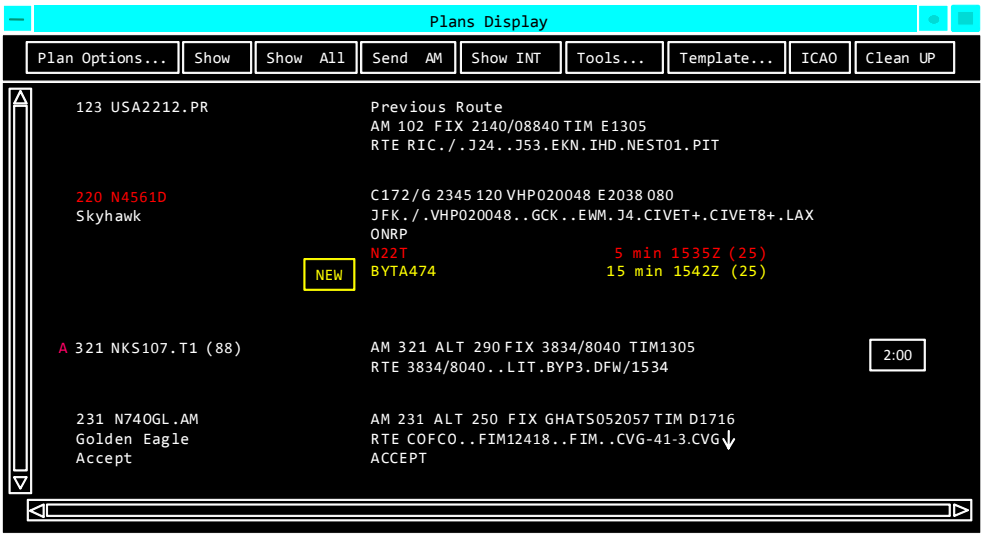

Figure 6–1. Plans Display

The Plans Display window can be re-sized in both height and width.The maximum vertical and horizontal extent is constrained only by the active display surface. The minimum width is large enough to display all of the menu buttons.

Examples of individual plan types are shown in Figure 6–1, including an example of a Previous Route plan and a flight plan readout of a Trial Plan with a non-**Automated Dependant Surveillance-Broadcast (ADS-B)** indicator. A Non-ADS-B indicator is displayed for active flights when the track indicates that there is no ADS-B, and for proposed flights when the flight plan indicates that the flight is not ADS-B-equipped. The Non-ADS-B indicator consists of a coral **A**, and is displayed to the left of CID. The ADS-B column is one character in width. The column is open if one or more entries has a Non-ADS-B indicator. The column is closed if none of the entries in the Plans Display has an ADS-B indicator. When closed, the ADS-B column is completely removed. The fields to the right of the ADS-B column shift to the left when the ADS-B column is closed, and shift to the right when it is opened. For example, the CIDs of all the entries are displayed in vertical alignment regardless of whether a Non-ADS-B indicator is currently being displayed for any entry.

The trial plan results of a pending TFM reroute contains the designatior ".R<#>" (R for reroute; example .R1). This is to differentiate it from the trial plan results of the current flight planned route which contains the designator ".T<#>". The pending reroute trial plan and the resulting amendment feedback contains the same color coding and chevrons in the route text as in the TFM Quick View (see Section 3.2.10) and TFM Reroute Menu (see Section 3.2.11).

6.1.1 Title Bar

The title bar is at the top of the Plans Display and contains the following information:

- The window menu button
- The display title, Plans Display
- The displays minimize and maximize/restore buttons

6.1.2 Menu Bar

Menu bar buttons enable the user to access various command options and menus when managing flight plans. Each menu bar button shown in Figure 6–2, Plans Display Menu Bar, has an active and inactive state. If a button is active, it is selectable and its text is white. If a button is inactive, that menu or option is not available. An inactive button and text will be gray. An ellipses follows the text label of a menu bar button indicate a menu is displayed when the button is selected.

Figure 6–2. Plans Display Menu Bar

A brief description of each menu bar follows:

a. **Plan Options**: this button displays the Plan Options Menu. This menu provides the option to access: the Altitude, Speed, Route, Trial Restrictions, and Trial Departure Menus, view the Previous Route, as well as stop/resume probe on an entry, resubmit a trial plan, or delete an entry.

b. **Show** button is used to graphically display or remove a selected aircrafts current plan and one specific alert assigned to the users sector.

c. **Show All** button is used to graphically display or remove all the alerts associated with the selected aircraft.

d. **Send AM** button is used to send an amendment to the system.

e. **Send INT** button enables the user to send an Interim Altitude message based on a Trial Plan to the system.

f. **Tools Menu** button displays the Tools Menu. The Tools Menu allows the user to select restrictions. The difference between the Aircraft List and the Graphic Plan Display Tools Menu from the Plans Display Tools Menu is that the Plans Displays Tools Menu only has one available option, Restrictions.

g. **Template** button opens the Flight Plan Template to create a flight plan (if no entry is selected) or the Amendment Template to amend a flight plan (if an entry is currently selected).

h. **ICAO** button displays available ICAO flight data for a selected entry.

i. **Clean Up** button enables the user to remove all Trial Plans, Current Plans, and accepted Amendment Plans from the Plans Display. The Clean Up Menu bar button will not be active when there are no eligible plans to be cleaned up.

6.1.3 Main Display Area

The main display area (Figure 6–3, Plans Display Main Display Section) displays the flight plans. As with the Aircraft List, and the Departure List, entries are organized using a tabular format.

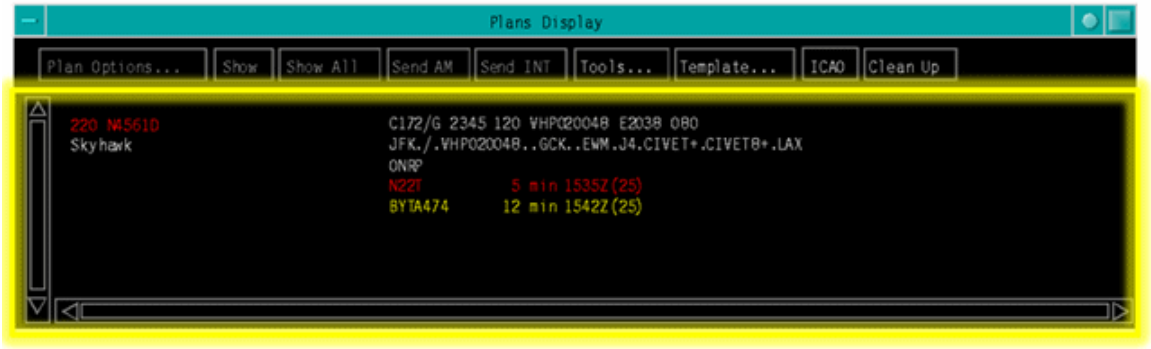

Figure 6–3. Plans Display Main Display Section

Display entries are posted with Current Plans on top, followed by Proposed Plans, Previous Route Plans, Trial Plans, and Amendment Message Plans. **Current Plan** entries are posted when the user middle-click on the Route Field of an Aircraft List entry or the Destination Field of a data block on the Graphic Plan Display. The basis flight plan is displayed first, followed by the non-basis plans, if any exist. The non-basis plans have an asterisk preceding the CID. Current Plan entries are removed from the Plans Display automatically, with a right-click on the plan ID, or with the Clean Up Menu bar button.

Proposed Plan entries are posted when the user middle-click on the Route Field of a Departure List entry. Proposed Plan entries do not have an expiration time, they are removed with a right-click on the plan ID or with the Clean Up Menu bar button.

Previous Route Plan entries are posted using the Previous Route button on an aircrafts Route Menu or from the Previous Route button in the Plan Options Menu. Previous Route Plan entries are removed from the Plans Display with a right-click on the plan ID or with the Clean Up Menu bar button.

Trial Plan entries are posted when the user create Trial Plans from the Aircraft List, Graphic Plan Display, Departure List or Plans Display. Trial Plan entries are automatically removed when their expiration time is reached, the flight plan is deleted, or an amendment is sent. The plans may be manually deleted with a right-click on the plan ID, or with the Clean Up Menu bar button.

Amendment Message Plan entries are posted when the user send a Flight Plan Amendment message based on an existing Trial Plan. When accepted, Amendment Plans are automatically deleted from the display. The plans may be manually deleted with a right-click on the plan ID, or with the Clean Up Menu bar button. System rejected amendment messages can only be removed individually by the user.

When the system determines a flight is APD ineligible, it will display the reason in the Plans Display. The Plans Display does not open automatically when an APD ineligible reason code is posted. The following are the reasons that can be displayed:

- Aircraft not probed: Assigned altitude not eligible
- Aircraft not probed: Inside tactical airspace
- Aircraft not probed: Far away from route
- Aircraft not probed: Flight is in Hold
- Aircraft not probed: No trajectory available
- Aircraft not probed: Flight has probe stopped

- Aircraft not probed: Flight ID handed off and has exited facility

6.2 Associated Menus

The following menus can be accessed from the PD:

- Plan Options
- Tools
- Flight Plan Template
- Amendment Template

A brief description of each menu is provided in the following subsections.

6.2.1 Plan Options Menu

Figure 6–4, Plan Options Menu, provides the user with options to create a Trial Plan, amend a flight plan, or enter an interim altitude. The menu is also used to specify an immediate action (e.g. Delete) to be taken on Plans Display entry. The Plan Options Menu is displayed when a flight plan is selected and the Plan Options Menu bar button is left-clicked. Certain menu options will not be available when the Plan Options Menu is brought up from the Plans Display when a pending reroute trial planned flight is selected. These will be grayed out and include Speed, Previous Route, Stop Probe, Trial Restrictions, and Trial Departure.

Figure 6–4. Plan Options Menu

The corresponding CID and the Flight ID for a selected entry appear at the top of the Plan Options Menu followed by nine menu options. These options may be active or inactive for a selected entry, depending on the entry's current scenario. An ellipsis **(...)** following the text of a menu option indicates that the associated submenu is displayed when the option is selected. The absence of an ellipsis indicates that the associated action is triggered immediately when the option is selected. A brief description of each menu option follows:

1. **Altitude...**: displays the Altitude menu and provides the capability to create a trial plan, or amend an assigned or interim altitude for an aircraft.
2. **Speed...**: displays the Altitude menu and provides the capability to create a trial plan or amend an assigned or interim altitude for an aircraft.
3. **Route...**: displays the Route Menu and provides the capability to create a trial plan or amend a route for a flight plan. For additional information on the Route Menu, See Section 3.2.1.2
4. **Previous Route...**: displays the Previous Route Menu showing the previous route along with the associated Time Flow Management (TFM) protected area, if any, and provides the capability to apply the previous route to the flight plan.
5. **Stop Probe...**: displays the Stop Probe Menu. The Stop Probe option is replaced with **Resume Probe** if the probe for the selected flight is already stopped. These menu options provide the user with the capability to suspend conflict alerts on a specific flight at its current location or at a selected fix. Selection for Stop Probe is grayed out if the flight is Automated Problem Detection (APD) ineligible, if current or future Hold is in effect for the flight, or if the flight is Commanded Frozen.
6. **Trial Restrictions...**: displays the Trial Restrictions Menu and provides the capability to activate or deactivate adapted restrictions on a trial basis for a specific entry in the Plans Display.
7. **Trial Departure...**: displays the Trial Departure Menu and provides the capability to create a trial plan based on time.
8. **Resubmit**: resubmits a Trial Plan.
9. **Delete**: deletes the selected Graphic Plan Display entry if there are no red or yellow alerts associated with the entry.

The Plan Options Menu cannot be resized. The nominal size is large enough to display all of the fields and buttons. To exit the menu, without selecting an option, the EXIT button is left-clicked.

6.2.2 Tools Menu

The Tools Menu displayed when the Tools Menu bar button is left-clicked on the Plans Display. This menu provides the user with access to the Restrictions Display shown in Figure 6–5, Tools Menu.

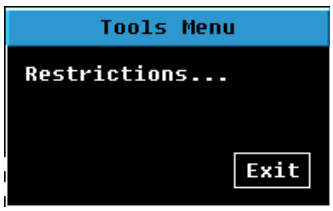

Figure 6–5. Tools Menu

The Restrictions option provides a list of altitude and/or speed restrictions imposed by the assigned sector position on surrounding sectors or centers as well as restrictions, which are imposed on the assigned sector, by surrounding sectors or centers.

6.2.3 Flight Plan Template

When a user selects the Template Menu bar button on the Plans Display and no entry is selected, Figure 6–6, Flight Plan Template, is displayed. This template enables the user to create a flight plan. The user fills in the required fields and left-clicks on the SEND button to submit the plan.

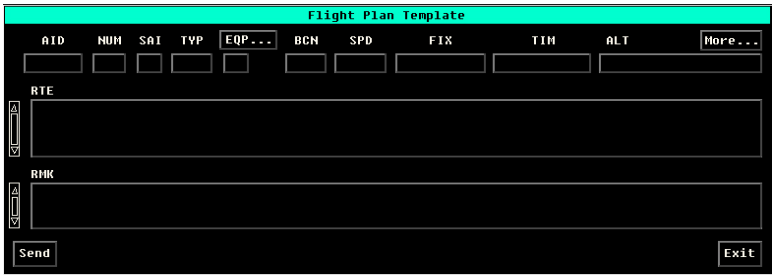

Figure 6–6. Flight Plan Template

6.2.4 Amendment Template

When a user selects a Plans Display entry, and then left-clicks on the Template Menu bar button, the Amendment Template opens populated with the flight plan data. Figure 6–7, Amendment Template, provides the user with a method to amend a flight plan for the selected entry. See Section 3.2.7 for additional information on the Amendment template.

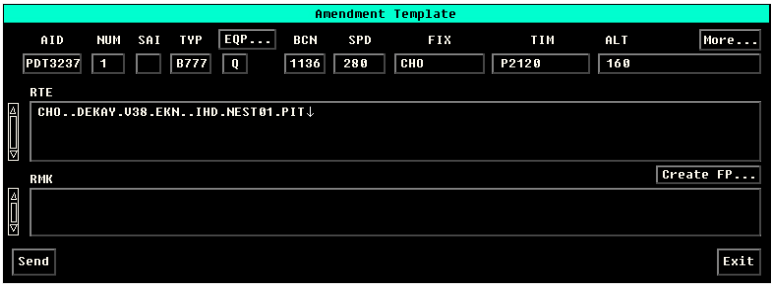

Figure 6–7. Amendment Template

6.3 User Commands

This section describes the following PD commands:

- Acknowledging All Conflicts
- Acknowledging Selected Conflicts
- Changing Current Restrictions
- Removing Plans from the Display
- Creating an Amendment
- Creating a Flight Plan

- Creating a Trial Plan
- Creating a Trial Departure Plan
- Creating Trial Restrictions
- Deleting a Plan
- Displaying/Editing/Entering Equipment Template Values
- Displaying Editing/Entering a Flight Plan/Amending More Template Values
- Displaying ICAO Data for a Flight Plan
- Displaying Previous Route Data
- Removing Conflict Acknowledgement for Specified Conflicts
- Resubmitting a Trial Plan
- Sending an Amendment Message
- Resuming a Probe
- Sending an Interim Altitude (INT) Message
- Showing All/Removing Show All for Flight Plans and Trial Plans
- Show/Removing Show
- Stopping Probe

CAUTION

Commands entered while a channel is in Pending mode are retained if the channel is promoted from Pending to Active mode. If a channel is promoted from Pending to Backup mode, these same commands are lost.

6.3.1 Acknowledging All Conflicts

The user can acknowledge all conflicts for a flight with a single command by using the following steps:

1. Position the cursor on a problem ID and click the right trackball button. The problem ID is displayed in reverse video. The Conflict Acknowledge Menu is displayed.
2. Position the cursor on the All Conflicts Menu button and click the left trackball button. The Conflict Acknowledge Menu is deleted and the reverse video coding is deleted.
   a. **Aircraft List**: white color coding is applied to the alert boxes and their contents.
   b. **Plans Display**: white color coding is applied to the problem IDs for the selected flight and to the plan ID and controlling sector id (if present).
   c. **GPD**: white color coding is applied to any alert indicators on line zero (0) of the data block.
3. Position the cursor on the Exit button and click the left trackball button. The Conflict Acknowledge Menu is deleted. No changes are applied to conflict coding.

6.3.2 Acknowledging Selected Conflicts

The user can acknowledge one or more conflicts for a flight by using the following steps:

1. Position the cursor on a problem ID and click the right trackball button. The problem ID is displayed in reverse video. The Conflict Acknowledge Menu is displayed.
2. Position the cursor on a menu selection (a problem ID) and click the left trackball button.

   This step may be repeated for all conflicts to be acknowledged. Selecting a menu item that was previously selected results in toggling the item to its previous state (off/on).

   If the menu item currently has alert color coding (red, muted red, yellow, muted yellow, or SAA Orange), selecting the item results in the application of white coding to the characters of that selection. If the menu item is currently shown in white characters, selecting the item results in the application of color coding to the characters appropriate to the type of alert (red, muted red, yellow, muted yellow, or SAA Orange).
3. Position the cursor on the OK button and click the left trackball button. The Conflict Acknowledge Menu is deleted and the reverse video coding is removed.
   a. **Aircraft List**: if all the problem IDs of a particular alert type (red, yellow, or SAA Orange) were acknowledged, the corresponding alert box (es) and the contents of the box (es) appear in white. If a selection in the Conflict Acknowledge Menu is displayed in red, muted red, yellow, muted yellow or SAA Orange when the OK button is selected, the corresponding alert indicator in the data block is displayed in the normal alert color (red, muted red, yellow, muted yellow, or SAA Orange).
   b. **Plans Display**: white color coding is applied to the characters of the problem IDs that appeared in white in the Conflict Acknowledge Menu when the OK button was selected. If a selection in the Conflict Acknowledge Menu is red, muted red, yellow, muted yellow, or SAA Orange when the OK button is selected, the corresponding problem is displayed in the normal alert color (red, muted red, yellow, muted yellow, or SAA Orange).
   c. **GPD**: if all the problem IDs of a particular alert type (red, yellow, SAA Orange) were acknowledged, the corresponding alert indicator(s) in line zero (0) of the data block are displayed in white. If a selection in the Conflict Acknowledge Menu is red, muted red, yellow, muted yellow, or SAA Orange when the OK button is selected, the corresponding alert indicator in the data block is displayed in the normal alert color (red, muted red, yellow, muted yellow, or SAA Orange).
4. Position the cursor on the Exit button and click the left trackball button. The Conflict Acknowledge Menu is deleted. No changes are applied to conflict coding.

6.3.3 Changing Current Restrictions

For a specific aircraft, the user can activate or deactivate aircraft restrictions or revert to the schedule on the Restrictions View by using the following steps:

1. Position the cursor on a Flight ID and click the left trackball button. The Flight ID is displayed in reverse video in the Plans Display. Menu bar buttons applicable to the selection are displayed as active.
2. Position the cursor on the Tools Menu bar button and click the left trackball button. The Tools Menu is displayed.

3. Position the cursor on the Restrictions Menu option and click the left trackball button. The Current Restrictions Menu is displayed with all the restrictions in the facility that could impact the selected aircraft's route of flight and that the user is eligible to change.
4. Position the cursor on the On button for an entry and click the left trackball button. The On button is displayed in reverse video.
5. Position the cursor on the OK button and click the left trackball button. The Current Restrictions Menu is removed. The selected restriction is turned on, overriding any system restriction previously applied. This change impacts only the selected aircraft Flight Plan and any future Trial Plans. The Plans Display is displayed over any currently displayed window and shows the Flight Plan entry with the results of the user action.
6. Position the cursor on the Exit button and click the left trackball button. The Current Restrictions Menu is removed. The restriction changes for the selected aircraft are not applied.

The user can deactivate restrictions by using the following steps:

1. Position the cursor on a Flight ID and click the left trackball button. The Flight ID is displayed in reverse video in the Plans Display. Menu bar buttons applicable to the selection appear as active.
2. Position the cursor on the Tools Menu bar button and click the left trackball button. The Tools Menu is displayed.
3. Position the cursor on the Restrictions Menu option and click the left trackball button. The Current Restrictions Menu is displayed with all the restrictions in the facility that could impact the selected aircraft's route of flight and that the user is eligible to change.
4. Position the cursor on the Off button for an entry and click the left trackball button. The Off button is displayed in reverse video.
5. Position the cursor on the OK button and click the left trackball button. The Current Restrictions Menu is deleted. The selected restriction is turned off. This change impacts only the selected aircraft Flight Plan and any future Trial Plans. The Plans Display is displayed over any currently displayed window and shows the Flight Plan entry with the results of the user action.
6. Position the cursor on the Exit button and click the left trackball button. The Current Restrictions Menu is deleted. The restriction changes for the selected aircraft are not applied.

The user can revert to the schedule on the Restriction View by using the following steps:

1. Position the cursor on the Revert button and click the left trackball button. (This assumes that the On or the Off button was previously selected.) The Revert button is displayed in reverse video.
2. Position the cursor on the OK button and click the left trackball button. The Current Restrictions Menu is deleted. The previous restriction, On or Off for that aircraft, reverts to the restriction status shown on the Restrictions View. This change impacts only the selected aircraft Flight Plan and any future Trial Plans. The Plans Display is displayed over any currently displayed window and shows the Flight Plan entry with the results of the user action.
3. Position the cursor on the Exit button and click the left trackball button. The Current Restrictions Menu is deleted. The restriction changes for the selected aircraft are not applied.

6.3.4 Removing Plans From the Display

The user can remove all Trial Plans, Flight Plans, Proposed Plans, and Previous Routes from the Plans Display by positioning the cursor on the Clean Up button in the Plans Display Menu bar and clicking the left button on the trackball. All Trial Plans, Flight Plans, Proposed Plans, accepted Amendment Plans, and Previous Route Plans displayed on the Plans Display are removed. If there are no plans remaining, the Plans Display is removed.

6.3.5 Creating an Amendment

The procedures in this section assume that the user is eligible to enter the amendment. If the user is not eligible to enter the command, the Eligibility Menu is displayed and the following input/output rules apply. Create an amendment by using the following steps:

1. Position the cursor on the Override and Send option and click the left trackball button.
2. Or, position the cursor on the Don't Send and Exit option and click the left trackball button. The Eligibility Menu is deleted. The command results are executed. The Eligibility Menu is deleted, the amendment message is canceled, and any associated template is removed from view.

The user can create an Amendment using an Amendment Template from the Plans Display as described below. The Template Menu bar button is available if the user selects a flight plan that is eligible to be modified by the local facility. If the selected flight plan is not eligible to be modified by the local facility, then the Template Menu bar button is displayed with gray background shading.

1. Position the cursor on the Plan ID in the Plans Display and click the left trackball button. The selected Plan ID is displayed in reverse video. Menu bar buttons applicable to the selected entry appear as active.
2. Position the cursor on the Template button in the menu bar and click the left trackball button. The Amendment Template is displayed with the Aircraft ID, Number, Special Aircraft Indicator, Type, Equipment Qualifier, Code, Speed, Fix, Time, Altitude, Route, and Remarks (if any) filled in and the input box corresponding to the field that was picked in the Plans Display is active.
3. Tab to a template field to edit/modify the value for that field. Entered text is echoed in the input field of the Amendment Template reflecting the changes made by the user (see the Display/Edit/Enter Equipment Template Values command).
4. Position the cursor on the Send button and click the left trackball button.
5. Or, press the **Enter** key when typing is completed. If an AAR was included in the route that is to be entered and the Time, Fix, or Route is changed, a PAR in Route dialog box is displayed. The format of the dialog box is shown in Figure 6–8, Format for Route Dialog Box. The purpose of the dialog box is to confirm that the intention was to clear the AAR, or to allow the amendment to be canceled. If Continue is selected, the amendment is sent, the Amendment Template is removed, and the description below applies. If Cancel is selected, the dialog box is deleted, the amendment is not sent, and the Amendment Template continues to be displayed to allow the template to be modified as appropriate, or cancel the command completely by selecting the **Exit** button on the Amendment Template.

   If the route is modified and will result in a destination change, an AM Change Destination Menu confirmation dialog box is displayed before sending the amendment.

6. Select **Yes** or **No** in the dialog box to send or cancel the command.

   The dialog box is displayed immediately below the route field of the Amendment Template, space permitting. Otherwise, the dialog box is displayed immediately above the route field. The format of the dialog box is shown in Figure 6–8.

   The populated Amendment Template remains while the system processes the Send command (only those fields in the Amendment template that the controller has modified are entered in the Amendment message). The AM plan is created in the Plans Display and any currently displayed AM plan for that flight is deleted from the Plans Display. Upon system acceptance, the Amendment Template is removed and an Accept message is displayed in the Plans Display.

   NOTE: For system Accept messages, the Plans Display is not forced to the top of the stack.

7. If a required field is not filled in and sent the amendment, correct the necessary Amendment Template entries and repeat steps 4, 5, and 6. The Plans Display is forced to the top of the stack displaying the error message. The Amendment Template remains displayed.
8. If an Amendment Message is sent that the system rejects, correct the Amendment Template and repeat steps 4, 5, and 6. The Plans Display is forced to the top of the stack displaying the reject message. The Amendment Template remains displayed.
9. Or, position the cursor on the Exit button and click the left trackball button. The Amendment Template is removed and so cancels the message composition/message correction process and no Amendment Message is entered.

Press the **Enter** key and the dialog box in Figure 6–8 is displayed or the Send button is selected to send an amendment based on the contents of the Amendment Template when the route contains an AAR.

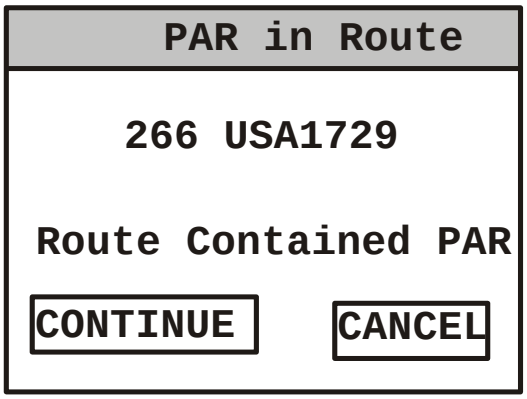

Figure 6–8. Format for Route Dialog Box

Press the **Enter** key and the dialog box in Figure 6–9, Format for Destination Change Dialog Box, is displayed or the Send button is selected to send an amendment based on the contents of the Amendment Template when the destination is changed.

Figure 6–9. Format for Destination Change Dialog Box

Alternatively, the user can create an Amendment message without going through the Template Menu bar button by accessing an Altitude Menu to create an Amendment via the Plan Options Menu using the following steps (the method described below assumes that there is no pending TFM reroute):

1. Position the cursor on the Plan ID of a Flight plan in the Plans Display and click the left trackball button. The selected Plan ID is displayed in reverse video. Menu bar buttons applicable to the selected entry are displayed as active.
2. Position the cursor on the Plan Options... bar button and click the left trackball button. The Plan Options Menu is displayed. The Plan ID is displayed in the menu under the title bar.
3. Position the cursor on the Altitude... Menu option and click the left trackball button. The Plan Options Menu is removed. The Altitude Menu is displayed. The Plan ID is displayed in the menu under the title bar. The current altitude is echoed in the input field in reverse video along with the corresponding altitude field in the display area.
4. Position the cursor on the Amend button and click the left trackball button. The Amend message mode is selected.

   NOTE: The Trial Plan button is always active when the Altitude Menu is initially displayed.

   NOTE: When the INT (assign interim altitude) button is not selected, the Delete Interim Alt Menu option is not eligible for selection (grayed–out).

5. Position the cursor on the INT button and click the left trackball button. INT (assign interim altitude) has been selected with the Delete Interim Alt Menu option available.
6. Using the menu to change Altitude, position the cursor on an altitude value from the menu and click the left trackball button to amend a flight plan or create a Trial Plan.

   If the Amend message is selected, the altitude value selected and the Amendment Message is entered. The Altitude Menu is removed from the display.

   If the INT message is selected, the altitude value selected is entered into the Amendment Message, and the Amendment is entered as an interim altitude message.

   NOTE: The input box in the menu will allow an R to be entered in front of the altitude value so that an interim altitude can be entered as a reported altitude.

7. Using the keyboard, type the desired altitude value in the input field. (The Range is 10 to 600). Press **Enter** when typing is complete to amend a flight plan.

Entered text is echoed in the input field on the Altitude Menu. The input field will display the value entered. The input field data is displayed as normal text. When typing an amendment using the keyboard, the Enter key closes the command and enters the altitude amendment. The Altitude Menu is deleted from the display.

Regardless of the input method (menu or typing), the results of the Amendment Message and the Interim Altitude Message appear on the Plans Display and the Plans Display is displayed on top of the display stack if the system returns an Error or a Reject message.

8. To exit this option without creating an Altitude Amendment Message, position the cursor on the Exit button in the Altitude Menu display area and click the left trackball button. The Altitude Menu is removed. The selected flight plan ID or the Trial plan ID remains displayed in reverse video. No Amendment Message is created.

Alternatively, the user can create an Amendment message without going through the AM Menu bar button by accessing a Route Menu to create an Amendment or an Interim Altitude Message via the Plan Options Menu by using the following steps:

1. Position the cursor on the Plan ID of a Flight plan in the Plans Display and click the left trackball button. The selected Plan ID is displayed in reverse video. Menu bar buttons applicable to the selected entry are enabled.
2. Position the cursor on the Plan Options... Menu bar and click the left trackball button. The Plan Options Menu is displayed. The Plan ID is displayed on the menu under the title bar.
3. Position the cursor on the Route... Menu option and click the left trackball button. The Plan Options Menu is removed. The Route Menu is displayed. The current route is echoed in the input field.
4. Position the cursor on the Amend button and click the left trackball button. The Amend message mode is selected.

   NOTE: The Trial Plan button is active when the Route Menu is initially displayed.

5. To select a Direct-to-Fix or an ATC Preferred Route; optionally, position the cursor over the selection box labeled Include PAR and click the left trackball button. If the box was not previously selected, it is displayed with white background fill (selected). To deselect the box, position the cursor over the filled box and click the left trackball button.

   The Route Menu is removed from the display. The direct-to-fix selected is inserted into the route for the Amendment Message, which is entered as a Route Amendment message.

   Any active selection box is displayed in reverse video.

   Upon selection of a direct-to fix, the Route Menu is removed from the display. The amendment is entered. The results of the amendment message are displayed on the Plans Display.

6. Optionally, position the cursor over the selection box labeled Append * and click the left trackball button to prohibit the system application of adapted routes if the box was not previously selected. Where there is an asterisk (*) appended to the Route in the input box, the Append * selection box is displayed as previously selected (filled in). To deselect the box, position the cursor over the box and click the left trackball button.

   The Route Menu is removed from the display. The amendment is entered. The Route field of the selected entry is displayed in reverse video until a response is received from the system. The results

of the Amendment message are displayed on the Plans Display. The Plans Display is raised to the top of the display stack only in the case of an unsuccessful message.

7. Optionally, position the cursor over the selection box labeled Append and click the left trackball button to inhibit Equipment Restricted Route (ERR) application if the box was not previously selected. Where there is an ERR symbol appended to the Route in the input box, the Append box is displayed as previously selected (filled in). To deselect the box, position the cursor over the box and click the left trackball button.

   Selection of the Append button results in automatic cancellation (deselection) of the Append * button if it was previously selected. Selection of the Append * button results in automatic cancellation (deselection) of the Append button if it was previously selected.

8. To select a fix, position the cursor on a direct-to-fix value from the menu and click the left trackball button to amend the route.
9. Position the cursor on a selection from the Apply ATC Preferred Route portion of the menu and click the left trackball button.
10. Using the keyboard, instead of selecting a value from the menu, type the desired characters over the current value in the input field.
11. Press the **Enter** key when typing is complete to amend a flight plan.

    Entered text is echoed in the input field of the Route Menu. The amendment is sent upon an **Enter** key press. If the current route for the flight contains an uncleared AAR, a dialog box is displayed to alert the controller to the uncleared AAR. The format of the dialog box is shown in Figure 6–10, Destination Change. If the Continue button is selected, the command is processed, the Route Menu is removed, and the description below applies. If the Cancel button is selected, the dialog box is removed, the command is canceled, and the Route Menu continues to be displayed to allow the contents of the input box to be modified as appropriate, or cancel the command completely by selecting the Exit button on the Route Menu. The results of the amendment message are displayed on the Plans Display.

    If the typed input results in a destination change, a confirmation dialog box is displayed before the amendment is sent. Select Yes or No in the dialog box to send the amendment, or cancel the command. If the amendment is cancelled, the Route Menu is removed from the display. No amendment message is created. The selected Plan ID remains displayed in reverse video.

    The dialog box is displayed immediately below the input field of the Route Menu, space permitting. Otherwise, the dialog box is displayed immediately above the input field. The format of the dialog box is shown in Figure 6–10.

12. Exit this option without creating a Route Amendment Message. Position the trackball on the Exit button in the Route Menu display area and click the left trackball button. The Route Menu is removed. The selected Plan ID remains displayed in reverse video. No Amendment Message is created.

    Press the **Enter** key and the dialog box in Figure 6–9 is displayed to send an amendment based on the contents of the Route Menu input box when the route contains an AAR.

Figure 6–10 shows the format for the Destination Change dialog box.

Figure 6–10. Destination Change

6.3.6 Creating a Flight Plan

The user can create a Flight Plan message from the Plans Display. The user accesses a template to create a Flight Plan via the Template button on the menu bar by using the following steps:

1. Position the cursor on the Template button in the menu bar and click the left trackball button. The Flight Plan Template is displayed with the Aircraft ID, Number, Special Aircraft Indicator, Type, Equipment Qualifier, Code, Speed, Fix, Time, Altitude, Route, and Remarks fields blank and with the input box for the first field (AID) active.
2. Tab to any template field to enter the value for that field. Entered text is echoed in the input field of the Flight Plan Template.
3. Position the cursor on the Send button and click the left trackball button.

   Or, press the **Enter** key when typing is completed.

   The populated Flight Plan Template remains displayed while the system processes the Send command. Upon system acceptance, the Flight Plan Template is removed and an Accept message is displayed on the Plans Display.

   NOTE: For system Accept messages, the Plans Display is not forced to the top of the stack.

4. If a required field was not filled in, correct the necessary Flight Plan Template entries and repeat step 3. The Plans Display is forced to the top of the stack displaying the error message. The Flight Plan Template remains displayed.
5. To send a Flight Plan Message that the system has rejected, correct the Flight Plan Template and repeat step 3. The Plans Display is forced to the top of the stack displaying the reject message. The Flight Plan Template remains displayed.
6. Position the cursor on the Exit button and click the left trackball button. The Flight Plan Template is removed and this cancels the message composition/message correction process and no Flight Plan Message is entered.

6.3.7 Creating a Trial Plan

The user can create a Trial Plan from the Plans Display. The user can designate that a flight plan be probed for problems by creating a Trial Plan with no amendments. When the user selects the Plan Options Menu bar button on the Plans Display, a menu is displayed that contains the following options:

Altitude, Speed, Route, Previous Route, Trial Restrictions, Trial Departure, Resubmit, and Delete. This section describes the first five options.

Creating a Trial Plan (Changing Altitude, Speed, or Route of Flight)

The user can create a new Trial Plan based on a Flight Plan or an existing Trial Plan; for example to change an altitude that was trialed and found to have a problem or to add an altitude change to a route change. In the course of creating a Trial Plan for route, the user can specify that a preferred route be overridden if one is in effect. For a trial plan done on a pending reroute, the Route Menu will not contain preferred routes.

To invoke the Plan Options Menu (the method described below assumes that there is no pending TFM reroute):

1. Position the cursor on the Plan ID in the Plans Display and click the left button on the trackball. The selected Plan ID is displayed in reverse video. Menu bar buttons applicable to the selected entry are displayed as active.
2. Position the cursor on the Plan Options Menu bar button in the Plans Display Menu bar and click the left button on the trackball. The Plan Options Menu is displayed and has the Plan ID displayed below the menu header.
3. Position the cursor on the Altitude, Speed, or Route Menu option and click the left trackball button. The Plan Options Menu is removed from display. The Altitude, Speed, or Route Menu appears as appropriate to the user selection. The menu contains an editable entry field containing the current field value.
4. Using the menu, to trial a value, position the cursor on a value from the menu and click the left button on the trackball.
5. Using the keyboard, type a value in the input box on the Altitude Menu and the Speed Menu, a value may be typed in the input box. In the Speed Menu, the user may type in an increment (+dd or +.dd for Mach), or a decrement (-dd or -.dd for Mach) to current speed. In the Route Menu, route strings can be edited by clicking the left trackball button on the typing field to highlight selections to be overwritten or deleted, backspacing to delete, placing the cursor and typing to insert, etc. Adapted Route Override, the user may append * with or without a preceding space to or the destination fix to override an adapted route. Press the **Enter** key on the keyboard when typing is complete.

To trial a flight plan, press the **Enter** key. The menu is removed from the display. A Trial Plan is created to reflect the new value. The results of the Trial Plan are displayed on the Plans Display. Any coding (for example red, yellow, and so on) as a result of this change is also displayed in the Plans Display.

Text is entered in the input field of the Altitude Menu, Speed Menu, or Route Menu, left-justified. The input field will display the value entered. The input field data appears in normal text.

For data from the Route Menu input box:

a. If the current route for the flight contains an uncleared AAR, a dialog box appears, which alerts the controller to the uncleared AAR. The format of the dialog box is shown in the figure below. If the user selects the button labeled Continue, the command is processed, the Route Menu is removed, and the description below applies. If the user selects the button labeled Cancel, the dialog box is removed, the command is cancelled, and the Route Menu continues to be displayed to allow the

user to modify the contents of the input box as appropriate, or cancel the command completely by selecting the Exit button on the Route Menu.

b. The Altitude Menu, Speed Menu, or Route Menu is removed from the display. The results of the Trial Plan are displayed on the Plans Display.

To exit this option without creating a Trial Plan, position the cursor on the Exit button and click the left button on the trackball. The Altitude Menu, Speed Menu, or Route Menu is removed. No Trial Plan is created.

The dialog box in Figure 6–11, Format for Route Dialog Box, appears when the **Enter** key is pressed to send an amendment based on the contents of the Route Menu input box when the route contains an AAR.

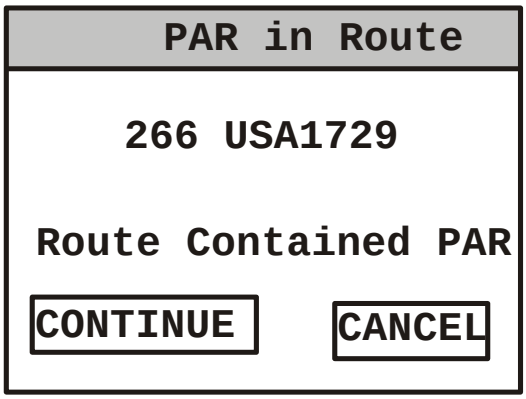

Figure 6–11. Format for Route Dialog Box

Creating a Trial Plan by Changing the Trial Departure Time

The user can create a trial plan by changing the proposed departure time.

Invoking the Trial Departure Menu:

1. Position the cursor on the Trial Plan ID and click the left trackball button. The selected plan appears in reverse video.
2. Position the cursor on the Plan Options. Menu bar button in the Plans Display Menu bar and click the left trackball button. The Plan Options Menu appears. The Trial Plan ID (CID, ACID, and Trial Plan Number) appears in the menu under the title bar.
3. Position the cursor on the Trial Departure. Menu option in the Plan Options Menu display area and click the left trackball button. The Plan Options Menu is deleted. The Trial Departure Menu appears. The Trial Plan ID appears in the menu under the title bar. The menu-input field is populated with the proposed time from the base Trial Plan. The proposed time appears in reverse video. If the base Trial Plan time is in the past, the entry field is populated with the current time and the P Time button is gray (disabled). If the base Trial Plan time is in the future, the P Time button appears with white increased brightness (enabled).

Creating a Trial Plan Using the Departure Plan Proposed Time

1. Position the cursor on the Create TP button in the Trial Departure Menu display area and click the left button on the trackball.

2. Or, position the cursor on the P Time button in the Trial Departure Menu display area and click the left button on the trackball. If the proposed time is in the past, this option is not available and the P Time button is gray (disabled).
3. Or, press the **Enter** key.

The Trial Departure Menu is removed. The menu bar buttons applicable to the selected entry are displayed as inactive. A Trial Plan is created using the Departure Plan proposed time and appears on the Plans Display.

Creating a Trial Plan with a New P Time - Manually Change Proposal Time

1. Type the desired time value in the input field using the keyboard. Time is from 0001 to 2400 (the time must be later than the current time).

   NOTE: The next day is assumed when the time is greater than 30 minutes in the past. Thirty minutes or less assumes current day (time).

   The menu-input field is updated to reflect the new time entered.
2. Position the cursor on the Create TP button in the Trial Departure Menu display area and click the left button on the trackball or press the **Enter** key. The Trial Departure Menu is deleted. The menu bar buttons applicable to the selected entry are displayed as inactive. A Trial Plan is created based on the new time and appears on the Plans Display.

Creating a Trial Plan with a New P Time - Changing Proposal Time Using Menu Buttons

1. Position the cursor on the plus button (+) to increase the time or on the minus button (-) to decrease the time and click the left button on the trackball. The time is changed in one-minute increments. The menu-input field is updated each time the plus or minus button is selected.
2. Position the cursor on the Create TP button in the Trial Departure Menu display area and click the left button on the trackball or press the **Enter** key. The Trial Departure Menu is removed. Menu bar buttons applicable to the selected entry are displayed as inactive. A Trial Plan is created based on the new time and appears on the Plans Display.

6.3.7.1 Display/Apply a Pending Reroute

See Section 3.3.10.5.

NOTE: While there is a pending reroute, any pick area that brings up the Route Menu will bring up the TFM Reroute Menu (e.g., Plans display Route Menu and GPD pick areas).

6.3.7.2 Rejecting a Pending Reroute

Rejection of the pending reroute is handled verbally between the AT Supervisor and TMU. It is assumed that the user has opened the TFM Reroute Menu (see Section 3.3.10.5).

See Section 3.3.10.6 for detailed procedures for rejecting a pending reroute.

6.3.8 Creating a Trial Departure Plan

The user can select a Proposed Plan to create a Trial Departure Plan which results in the automatic display of the graphical route on the GPD and the addition of a Trial Departure Plan entry to the Plans Display. The graphical display on the GPD includes alerts assigned to the sector as well as alerts detected outside the sector.

The command is available only when the plan is valid, for example, not coded as invalid or for removal. The method for this command is similar to that for Show All for Flight Plans or Trial Plans, however the results are different. When the selected object is a Proposed Plan, a new Trial Plan is created and added to the Plans Display, and the graphical route is drawn on the GPD. This command cannot be used to toggle the graphical route on and off on the GPD. If the graphical route for a Trial Departure Plan is currently displayed on the GPD and the user selects the same Proposed Plan on the Plans Display and does a second Trial Departure Plan for the entry, the route for that flight is redrawn (with a T2 in the data tag), and a new trial plan is added to the Plans Display with the time of the Trial Departure Plan.

The graphical route on the GPD that results from this Trial Departure command may be removed via a middle-click on the displayed route or by using the Clean Up button. The Trial Plan on the Plans Display that results from this command may be removed by using the Clean Up button or by using the Delete command.

The following applies only to Proposed Plans; it does not apply to Flight Plans, Trial Plans, Trial Departure Plans, or Amend Plans:

> Position the cursor on the Plan ID of the Proposed Plan in the Plans Display and click the middle button (implied command) on the track ball. The affected routes are displayed on the Graphic Plan Display. The selected aircraft data block and route are displayed in the highest alert color based on all alerts (whether assigned to sector or not). A Trial Plan appears on the Plans Display showing the current time as the departure time.

6.3.9 Creating Trial Restrictions

The user can access the Trial Restrictions Menu to activate or deactivate restrictions on a trial basis for a specific Flight Plan or Trial Plan by using the following steps:

1. Position the cursor on the Plan ID in the Plans Display and click the left button on the trackball. The selected plan appears in reverse video.
2. Position the cursor on the Plan Options... button in the Plans Display Menu bar and click the left button on the trackball. The Plan Options Menu opens. The Plan ID appears in the menu under the title bar.
3. Position the cursor on the Trial Restrictions... Menu option in the Plan Options Menu display area and click the left button on the trackball. The Plan Options Menu is deleted. The Trial Restrictions Menu appears. The Plan ID appears in the menu under the title bar. All restrictions in the facility that impact the selected aircraft route of flight regardless of whether the user has authority to change the restriction are displayed.
4. Position the cursor on the On button or the Off button for an entry in the Trial Restrictions Menu display area and click the left button on the trackball (the user is able to change more than one entry before selecting the Create TP button). The selected button appears filled with a black dot inside the

button. The actions to turn a restriction on or off only happen based on the status of that entry. Only one button (On or Off) may be selected for each entry. When the status is On and the On button is selected, a trial plan is created for restriction applied.

5. Position the cursor on the Create TP button in the Trial Restrictions Menu display area and click the left button on the trackball. The Trial Restrictions Menu is deleted. A Trial Plan is created based on the selection and appears on the Plans Display.
6. Position the cursor on the Exit button in the Trial Restrictions Menu display area and click the left trackball button. The Trial Restrictions Menu is deleted from the display and restrictions for the selected aircraft are not applied.

6.3.10 Deleting a Plan

The user can delete a Previous Route Plan, a Flight Plan Readout of a Flight Plan, a Flight Data Readout of a Proposed Plan, a Trial Plan, or an AM Plan by using the following steps:

1. **Implied Delete** – the user can perform an Implied delete by positioning the cursor on the Plan ID in the Plans Display and clicking the right button (implied delete) on the trackball. The Plan entry is deleted from the display. Any entries below the deleted entry move up. If there are no plans remaining, the Plans Display is deleted. If there is an associated trial plan, it is also deleted from the Graphic Plan Display.
2. **Selected Command** –
   a. Position the cursor on the Plan ID in the Plans Display and click the left button on the trackball. The Plan ID appears in reverse video. Menu bar buttons applicable to the selected entry are enabled.
   b. Position the cursor on the Plan Options button in the Plans Display Menu bar and click the left button. The Plan Options Menu opens. The Plan ID appears on the menu under the title bar.
   c. Position the cursor on the Delete Menu option in the Plan Options Menu display area and click the left button on the trackball. The Plan Options Menu is deleted. The Plan entry is deleted from the display. Menu bar buttons applicable to the deleted entry are displayed as inactive. Entries below the deleted entry move up. If there are no plans remaining, the Plans Display is deleted. The associated Trial Plan is also deleted from the Graphic Plan Display.

6.3.11 Displaying/Editing/Entering Equipment Template Values

The user can access the Equipment Template from the Flight Plan or Amendment Template by using the following steps:

1. From the Flight Plan Template or the Amendment Template, position the cursor on the EQP button in the template header and click the left trackball button. The Equipment Template appears. The NAV tab is highlighted (gray background shading) and the associated data appears.
2. If required, select another tab button (SRV, COM, or APP/SVC) on the Equipment Template by positioning the cursor over the button and clicking the left trackball button. Repeat this step as necessary. The selected tab button is highlighted and the associated data list, radio buttons, checkboxes, and text entry fields (as applicable) for that tab appear.

3. Position the cursor on a radio button or checkbox associated with the type of equipment to be entered and click the left trackball button. Repeat as necessary for checkboxes. The radio button or checkbox appears as selected.
4. Optionally, as applicable, enter textual values. If the desired input box is not already active, position the cursor over the text entry box and click the left trackball button. An I beam appears in the text entry box.
5. Type or edit the information in the text entry field. The data appears in the text entry field.
6. Optionally, to undo the changes to the displayed data, position the cursor over the Reset button and click the left trackball button. Repeat step 3 or steps 4 and 5 as required. The data displayed in the text entry boxes for the currently selected tab reverts to the contents displayed upon initial display of the template.
7. Position the cursor on the OK button and click the left trackball button. Selected changes are applied and the Equipment Template is deleted. The Flight Plan Template or the Amendment Template appears with the cursor over the Send button.
8. Optionally, position the cursor on the Cancel button and click the left trackball button. The Equipment Template is deleted; any entered data is not retained. The Flight Plan or Amendment Template appears with the cursor over the Exit button.

6.3.12 Displaying/Editing/Entering a Flight Plan/Amending More Template Values

The user can access the More Template from the Flight Plan or Amendment Template by using the following steps:

1. From the Flight Plan Template or the Amendment Template, position the cursor on the More button in the template header and click the left trackball button. The More Template appears. Any previously-entered values appear in the appropriate fields.
2. Optionally, position the cursor over the desired radio button for WAK (Wake Category) or FLT (Type of Flight). The button is filled-in with reverse video (custom gray) highlighting to show that it has been selected. If another button in the row has previously been selected, the selection emphasis (custom-gray fill) is removed from that button. Buttons in the WAK or FLT row cannot be individually deselected (an individual button cannot be selected a second time to remove selection emphasis). A selection can be cancelled (returned to the previous state of the template) by selecting the Cancel button.
3. Optionally, position the cursor over any of the text entry fields: 24–Bit address, STS (Special Handling), ALA (Alternate Airport) or an adapted field, and click the left trackball button to activate that text entry field. An I bar appears in the first character position of the respective text entry box.
4. Type or edit the information in the text entry field.
5. Repeat Step 3 (optionally, position the cursor over any of the text entry fields: 24-Bit address, STS (Special Handling), ALA (Alternate Airport) or an adapted field, and then click the left trackball button to activate that text entry field. An I bar appears in the first character position of the respective text entry box) and then Step 4.

   Type or edit the information in the text entry field as necessary. The data appears in the text entry field.

6. Optionally, undo the changes made to the template by positioning the cursor over the Reset button and clicking the left trackball button. The More Template continues to be displayed, but the data in the text entry fields reverts to the previous state (as shown upon initial display of the template).
7. Position the cursor on the OK button and click the left trackball button. Selected changes are applied and the More Template is deleted. The Flight Plan Template or the Amendment Template appears with the cursor over the Send button.
8. Optionally, position the cursor on the Cancel button and click the left trackball button. The More Template is deleted; any entered flight plan data is not retained. The Flight Plan Template or the Amendment Template appears with the cursor over the Exit button.

6.3.13 Displaying ICAO Data for a Flight Plan

When ICAO information is available for a flight plan, the user can display the ICAO information in addition to the flight plan information by using the following steps:

1. Position the cursor on the Plan ID in the Plans Display and click the left button on the trackball. The selected plan appears in reverse video and the ICAO button is enabled.
2. Position the cursor on the ICAO button and click the left button on the trackball. The ICAO information appears after the non-ICAO flight plan data.

   NOTE: Once ICAO information is displayed for an entry it cannot be removed.

6.3.14 Displaying Previous Route Data

The user can request a display of the previous route data for a Flight ID to be displayed on the Previous Route Menu. If the flight plan route has been amended and therefore has previous route data, the data appears. If there was a pending reroute that was associated with the previous route, the menu will display the text “Reapply pending reroute”. Once the user selects the “Apply Previous Route” button, the route is updated to the previous route and the pending reroute notification is reapplied to the display. The user now has access to the TFM Reroute Menu. If the flight plan route has not been amended and therefore has no previous route data, the user is prohibited from displaying the previous route. In this case, the Previous Route button is grayed out on the Route Menu.

Displaying Previous Route Data

1. Position the cursor on the **Plan ID** and click the **left trackball** button. The Plan ID appears in reverse video. Menu bar buttons applicable to the selected entry are displayed as active.
2. Position the cursor on the **Plan Options Menu bar** button and click the **left trackball** button. The Plan Options Menu appears.
3. Position the cursor on the **Previous Route** button and click the **left trackball** button. The Plan Options Menu is removed. The Previous Route Menu is displayed at the top of the display stack with the cursor located between the “Apply Previous Route” button and the “Exit” button.
4. To apply the previous route, position the cursor on the **Apply Previous Route** button and click the left trackball button.
   a. The Previous Route Menu is removed.

b. The route that is displayed on the Plans Display is updated to the previous route.

5. To exit the menu without applying the previous route, position the cursor on the **Exit** button and click the left trackball button. The Previous Route Menu is removed.

6.3.15 Removing Conflict Acknowledgement for Specified Conflicts

The user can remove conflict acknowledgement coding (reapply normal alert color coding) for selected conflicts by using the following steps:

1. Position the cursor on a problem ID and click the right trackball button. The problem ID appears in reverse video. The Conflict Acknowledge Menu appears.
2. Position the cursor on a menu selection (a problem ID) that is currently displayed in white and click the left trackball button. This step may be repeated for all conflicts to be acknowledged. The appropriate color coding (red, yellow, or SAA Orange) for the item is restored in the menu upon selection of the item.
3. Position the cursor on the OK button and click the left trackball button. The Conflict Acknowledge Menu is removed and the reverse video coding is removed.
   a. Aircraft List: For menu selections that were displayed with alert color coding (red, muted red, yellow, muted yellow, or SAA Orange) in the Conflict Acknowledge Menu when the OK button was pressed, the corresponding alert box(es) and the contents of the box(es) are displayed in the normal alert color (red, muted red, yellow, muted yellow, or SAA Orange).
   b. Plans Display: For IDs that were displayed with color coding (red, muted red, yellow, muted yellow or SAA Orange) in the Conflict Acknowledge Menu when the OK button was pressed, the appropriate color coding is applied to the problem IDs.
   c. GPD: If a selection in the Conflict Acknowledge Menu is shown in red, muted red, yellow, muted yellow, or SAA Orange when the OK button is selected, the corresponding alert indicator in the data block appears in the normal alert color (red, muted red, yellow, muted yellow, or SAA Orange).
4. Position the cursor on the Exit button and click the left trackball button. The Conflict Acknowledge Menu is removed. No changes are applied to conflict coding.

6.3.16 Resubmitting a Trial Plan

The user can resubmit a Trial Plan if for example it is coded as invalid by using the following steps:

1. **Implied Command**

   NOTE: Resubmit is the default command for a Trial Plan that is coded invalid.

   Position the cursor on the Trial Plan ID of a Trial Plan that is coded invalid in the Plans Display and click the middle button (implied command) on the trackball. The results of the resubmitted Trial Plan are displayed with a new Trial Plan number. The selected Trial Plan is removed from the Plans display and from the GPD.
2. **Selected Command**

a. Position the cursor on the Trial Plan ID in the Plans Display and click the left button on the trackball. The Trial Plan ID appears in reverse video. Menu bar buttons applicable to the selected entry are enabled.

b. Position the cursor on the Plan Options button in the Plans Display Menu bar and click the left button on the trackball. The Plan Options Menu opens. The Plan ID appears in the menu under the title bar.

c. Position the cursor on the Resubmit Menu option in the Plan Options Menu display area and click the left button on the trackball. The Plan Options Menu is removed. The results of the resubmitted Trial Plan appear with a new Trial Plan number on the Plans Display and the GPD. The selected Trial Plan is removed from the Plans Display and the GPD. Menu bar buttons applicable to the selected entry are displayed as inactive.

6.3.17 Sending an Amendment Message

The user can enter a Flight Plan amendment message into the system based on a Trial Plan. If the amendment text for a Trial Plan exceeds the allowable length to be entered into the system, a message appears in the Response Display. If the system is unable to generate valid amendment text, the Send AM button is inactive. If manual removal or application of sector boundary altitude or speed restrictions have been invoked for a Trial Plan, the Send AM button sends a message to the system. The Send AM command is not applicable for Flight Plans, Trial Flight Plans, and Trial Departure Trial Plans.

Aircraft Under Control of Sector - Using the Send AM Menu Button

1. Position the cursor on the Trial Plan ID in the Plans Display and click the left trackball button. The Plan ID appears in reverse video. Menu bar buttons applicable to the selected entry are enabled.
2. Position the cursor on the Send AM Menu bar button and click the left trackball button. The Trial Plan for that aircraft ID is deleted from the Plans Display and a new Trial Plan with a new identifier (.AM) appears.

Aircraft Controlled by Another Sector - Using the Send AM Menu Button

1. Position the cursor on the Plan ID in the Plans Display and click the left trackball button. The Plan ID appears in reverse video. Menu bar buttons applicable to the selected entry are enabled.
2. Position the cursor on the Send AM button in the Plans Display Menu bar and click the left trackball button. The Eligibility Menu opens. The Plan ID appears in the menu under the title bar.
3. Position the cursor on the Send button in the Eligibility Menu and click the left trackball button.
4. To cancel the operation, position the cursor on the Exit button in the Eligibility Menu and click the left trackball button. The Eligibility Menu is deleted. The Trial Plan for that aircraft is deleted from the Plans Display and a new Trial Plan with a new identifier (.AM) appears. The Eligibility Menu is deleted.

6.3.18 Resuming a Probe

The user can enter a Resume Probe command for a specified aircraft from the Aircraft List. Entry of the message causes resumption of the probe of a flight plan for problems.

1. Position the cursor on the Plan ID and click the left trackball button. The Plan ID appears in reverse video. Menu bar buttons applicable to the selected entry appear as active.
2. Position the cursor on the Plan Options Menu bar button and click the left trackball button. The Plan Options Menu appears.
3. Position the cursor on the Resume Probe Menu option and click the left trackball button. The Plan Options Menu is deleted. On the Plans Display, the Stop Probe message is deleted from the flight plan.

   On the GPD, the brown SSS is removed from line zero of the data block and the brown coding is removed from the route. Conflict indication returns to normal.

   On the Aircraft List, the alert boxes for the entry are displayed in their normal color and the brown S is removed from each alert box, or from the character space that follows the alert boxes. Normal alert indication for the flight resumes. The brown coding is removed from the Flight ID field.

6.3.19 Sending an Interim Altitude Message

The user can enter into the system an Interim Altitude message based on the Trial Plan. If the amendment text for a Trial Plan exceeds the allowable length for entry into the system, a message appears in the Response Display. If the automation is unable to generate valid amendment text, the Send INT button becomes inactive. If manual removal or application of sector boundary altitude or speed restrictions has been invoked for a Trial Plan, the Send INT button sends a message to the system.

Aircraft Under Control of Sector - Using the Send INT Menu Button

1. Position the cursor on the Plan ID in the Plans Display and click the left trackball button. The Plan ID appears in reverse video. Menu bar buttons applicable to the selected entry are displayed as active.
2. Position the cursor on the Send INT Menu bar button and click the left trackball button. The Trial Plan for that aircraft ID is deleted from the Plans Display and a new Trial Plan with a new identifier (AM) appears.

Aircraft Controlled by Another Sector - Using the Send INT Menu Button

1. Position the cursor on the Plan ID in the Plans Display and click the left trackball button. The Trial Plan ID appears in reverse video. The menu bar buttons applicable to the selected entry are enabled.
2. Position the cursor on the Send INT button in the Plans Display Menu bar and click the left trackball button. The Eligibility Menu is opened. The Plan ID appears in the menu under the title bar.
3. Position the cursor on the Send button in the Eligibility Menu and click the left button on the trackball. The Eligibility Menu is deleted. The Trial Plan for that aircraft is removed from the Plans Display and a new Trial Plan with a new identifier (.AM) appears.
4. To cancel the operation, position the cursor on the Exit button in the Eligibility Menu and click the left button on the trackball. The Eligibility Menu is deleted.

6.3.20 Showing All/Removing Show All

The user can graphically display a Flight Plan or a Trial Plan (Plan ID). The display includes alerts assigned to the sector and alerts detected outside the sector. The user can specify one Trial Plan per aircraft

for multiple aircraft for display on the Graphic Plan Display. This command is available only when the Trial Plan is valid, for example not coded invalid or for removal.

NOTE: This command is not applicable for AM Plans, Proposed Plans, or Problem IDs.

Showing All

To Show All Implied Commands, position the cursor on the Plan ID in the Plans Display and click the middle trackball button (implied command). The routes of affected aircraft are displayed on the Graphic Plan Display. The selected aircraft data block and route appear in the highest alert color based on all alerts (assigned to the sector or not).

To show all Selected Commands:

1. Position the cursor on the Plan ID in the Plans Display and click the left button on the trackball. The Plan ID appears in reverse video. Menu bar buttons applicable to the selected entry are displayed as active.
2. Position the cursor on the Show All button in the Plans Display Menu bar and click the left button on the trackball. The routes of affected aircraft appear on the Graphic Plan Display. The selected aircraft data block and route are displayed in the highest alert color based on all alerts (whether assigned to the sector or not). The menu bar buttons applicable to the selected entry are displayed as inactive.

Removing Show All

To remove Show All for Implied Commands, position the cursor on the Plan ID in the Plans Display and click the middle trackball button (implied command); this assumes the selected plan is currently displayed on the Graphic Plan Display. The routes of affected aircraft are removed from the Graphic Plan Display.

To remove Show All for Selected Commands:

1. Position the cursor on the Plan ID in the Plans Display and click the left button on the trackball. The Plan ID appears in reverse video. Menu bar buttons applicable to the selected entry are enabled.
2. Position the cursor on the Show All button in the Plans Display Menu bar and click the left button on the trackball; this assumes the selected plan is currently displayed on the Graphic Plan Display. The routes of affected aircraft are removed from the Graphic Plan Display. Menu bar buttons applicable to the selected entry are displayed as inactive.

6.3.21 Showing/Removing Show

The user can graphically display a single conflict notification (Problem ID). The user can display one trial plan per aircraft on the Graphic Plan Display. This command is available only when the plan is valid, for example not coded invalid or for removal.

Show

To show Implied Command, position the cursor on the Problem ID in the Plans Display and click the middle trackball button (implied command). The routes of affected aircraft are displayed on the Graphic Plan Display.

To show Selected Command:

1. Position the cursor on the Problem ID in the Plans Display and click the left button on the trackball. The selected object appears in reverse video. Menu bar buttons applicable to the selected entry are enabled.
2. Position the cursor on the Show button in the Plans Display Menu bar and click the left trackball button. The routes of affected aircraft are displayed on the Graphic Plan Display. Menu bar buttons applicable to the selected entry are displayed as inactive.

Removing Show

To remove showing the Implied Command, position the cursor on the Problem ID in the Plans Display and click the middle trackball button (implied command); this assumes the selected problem is currently displayed on the Graphic Plan Display. The routes of affected aircraft are removed from the Graphic Plan Display.

To remove showing the Selected Command:

1. Position the cursor on the Problem ID in the Plans Display and click the left trackball button. The selected object appears in reverse video. The menu bar buttons applicable to the selected entry are enabled.
2. Position the cursor on the Show button in the Plans Display Menu bar and click the left trackball button. The routes of affected aircraft are removed from the Graphic Plan Display. Menu bar buttons applicable to the selected entry are displayed as inactive; this assumes that the selected problem is currently displayed on the Graphic Plan Display.

6.3.22 Stopping Probe

The user can create a Stop Probe message from the Plans Display. Entry of the message causes a flight plan to stop being probed for problems beginning at the user-specified fix. This command is not eligible if a current or future Hold is in effect for the flight or if the flight is Commanded Frozen.

1. Position the cursor on the Plan ID and click the left trackball button. The Plan ID appears in reverse video. Menu bar buttons applicable to the selected entry are displayed as active.
2. Position the cursor on the Plan Options Menu bar button and click the left trackball button. The Plan Options Menu appears.
3. Position the cursor on the Stop Probe Menu option and click the left trackball button. The Plan Options Menu is deleted. The Stop Probe Menu appears.
4. Position the cursor on the PRESENT POSITION button and click the left trackball button. The Stop Probe Menu is deleted. On the Plans Display, the message Stop Probe at present position is added to the flight plan. The message appears in brown characters. In the data block on the GPD, each alert symbol is replaced with a brown S (SSS appears in brown on line zero). The graphic route for the flight, if shown, appears in brown from the Stop Probe location to the destination. On the Aircraft List, the alert boxes for the entry are displayed in brown. A brown S appears in each alert box. The Flight ID field of the ACL entry appears in brown.
5. Position the cursor on a menu selection for a fix and click the left trackball button. The Stop Probe Menu is deleted. On the Plans Display, a message that the Stop Probe is at <fix> is added to the

flight plan. The message appears in brown characters. In the data block on the GPD, when the flight reaches the fix, each alert symbol is replaced with a brown S (SSS appears in brown on line zero).

The graphic route for the flight, if shown, appears in brown from the Stop Probe location to the destination. There is no indication displayed in the GPD data block to indicate that a Stop Probe will occur at a future fix. On the Aircraft List, a brown S appears in the entry immediately to the right of the alert boxes. When the flight reaches the Stop Probe location, the S is deleted, the alert boxes are displayed in brown, and a brown S appears in each alert box. The Flight ID field of the ACL entry is also displayed in brown when the flight reaches the Stop Probe location.

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7. WIND GRID DISPLAY

This chapter describes characteristics of the Wind Grid (WG) Display. Major topics are:

a. Layout and Characteristics

b. Associated Menus

c. User Commands

7.1 Layout and Characteristics

Figure 7–1, Wind Grid Display, is displayed using the **Wind** toolbar button. The date and time of the National Weather Service (NWS) prediction are also displayed.

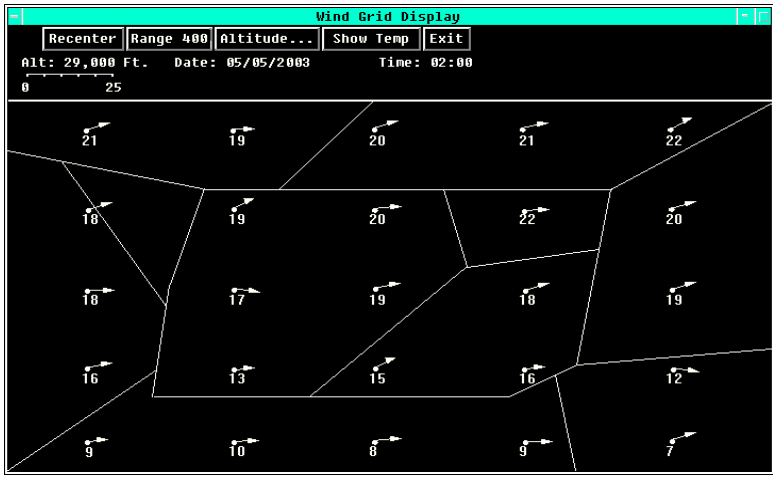

Figure 7–1. Wind Grid Display

The Wind Grid Display map displays the sector boundaries and fixes. Wind data is presented over the map using numerous arrows, each pointing in the direction of the winds and labeled with the speed of the wind in knots. Temperature data can also be presented over the map using points to indicate the geographic location of the data and labels to indicate the temperature in centigrade. Only one type of data, winds or temperature, may be displayed at one time.

Components of the Wind Grid Display include the following:

- Title Bar
- Menu Bar, including:
  - — Altitude Indicator
  - — Date Indicator
  - — Time Indicator
  - — Scale Indicator
- Main Display Area

Each component is described in the following subsections.

7.1.1 Tool Bar

The title bar is at the top of the Wind Grid Display and contains the following:

- Window menu button
- Display title, Wind Grid Display
- Displays minimize and maximize/restore buttons

7.1.2 Menu Bar

The Wind Grid Display (WGD) has a menu bar that similar to the Aircraft List, the Graphic Plan Display, and the Plans Display (Figure 7–2, WGD Menu Bar Buttons). It also has a row of buttons just below the title bar. WGD Menu buttons enable access to various command options and menus for managing the Wind Grid data. An ellipses following the text label of a menu bar button indicates that a menu is displayed when the button is selected.

Figure 7–2. WGD Menu Bar Buttons

A brief description of each menu bar button follows:

a. **Recenter**: the Recenter button provides the capability to select a new map center point for the Wind Grid Display. When left-clicked, the cursor changes to an X and a crosshair indicates the current center of the display.

b. **Range**: this button provides the capability to change the scale of the Wind Grid Display. Using the trackball, the user can increase or decrease the range of the Wind Grid Display.

c. **Altitude**: when the Altitude Menu bar button is clicked, the Altitude Menu is displayed. The Altitude Menu allows the user to specify an altitude for the display of wind or temperature data on the Wind Grid Display.

d. **Show Temp**: this menu bar button is a toggle button between two options, Show Temp and Remove Temp. When the user clicks Show Temp, the wind data is removed from the Wind Grid Display and the temperature data is shown. Conversely, when Remove Temp is clicked, the temperature data is removed and the wind data is shown.

e. **Exit**: when the user selects the Exit Menu bar button, the Wind Grid Display is removed from the screen.

The following indicators appear just below the menu bar:

a. **Altitude** indicator displays the WDG current altitude setting.

b. **Date** indicator displays the forecast date of the NWS prediction for the specified altitude level.

c. **Time** indicator displays the forecast time of NWS prediction for the specified altitude level. If the weather data available for display for the selected altitude is older than the hour for which it was forecasted, then the Time indicator is displayed in yellow indicating stale weather data.

d. **Scale** indicator displays the scale of the Wind Grid Display in nm increments. The scale adjusts automatically when the user adjusts the range of the display with the Range Menu bar button.

The **Altitude Indicator** shown in displays the Wind Grid Displays current altitude setting. The **Date Indicator** shown in indicates the forecast date of the National Weather Service (NWS) prediction for the specified altitude level. The **Time Indicator** shown in indicates the forecast time of National Weather Service (NWS) prediction for the specified altitude level. If the current time is beyond the valid forecast hour, the time will be displayed with yellow coding. The **Scale Indicator** shows the scale of the Wind Grid Display in nm increments. The scale adjusts automatically when the user adjusts the range of the display with the Range Menu bar button.

7.1.3 Main Display Area

As stated before, the Wind Grid Displays main display areas shown provides wind (top) or temperature data (bottom) overlaid on a map of the users sectors (Figure 7–3, Wind Grid Display - Wind Data).

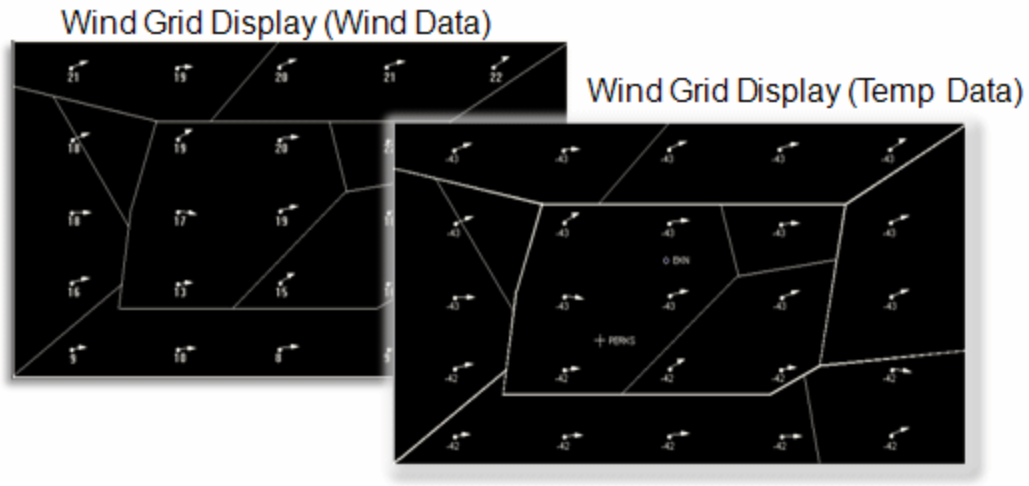

Figure 7–3. Wind Grid Display - Wind Data

When no weather data is available for display in the Wind Grid Display, the words "**NO WEATHER DATA**" are displayed across the main display area in large yellow characters.

7.2 Associated Menus

There is one submenu that can be accessed from the Wind Grid Display; the **Altitude Menu**. A description of this menu is provided in the following subsection.

7.2.1 Altitude Menu

Figure 7–4, Altitude Menu, is displayed when the user clicks the Altitude Menu button on the WGD Menu bar. Preset altitude level menu buttons can be selected or a user-defined altitude can be typed in the input box to specify an altitude level from 0 to 59,000 feet.

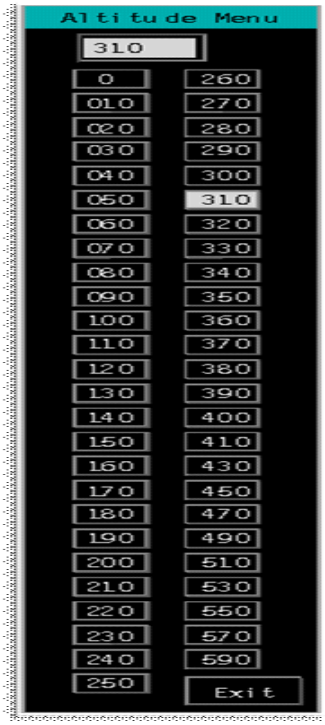

Figure 7–4. Altitude Menu

On the Altitude Menu, selections are available in 1,000-foot increments from 0 to 41,000 feet and 2,000-foot increments above 41,000 feet. Once an altitude is selected, the altitude indicator on the Wind Grid appears in reverse video. Reverse video is deleted from the selected altitude button when another button is selected or when another value is typed in the menu input field.

7.3 User Commands

This section describes the following Wind Grid Display commands:

- Exiting the Altitude Menu
- Exiting the Display
- Map Offset
- Increasing/Decreasing the Range
- Showing/Removing Temperature
- Specifying the Altitude

CAUTION

Commands entered while a channel is in Pending mode are retained if the channel is promoted from Pending to Active mode. If a channel is promoted from Pending to Backup mode, these same commands are lost.

7.3.1 Exiting the Altitude Menu

The user can close the Altitude Menu with a single command as follows:

Position the trackball cursor on the Exit button of the Altitude Menu and click the left button on the trackball. The Altitude Menu is closed.

7.3.2 Exit the Display

The user can minimize (iconify) the Wind Grid Display with a single command as follows:

Position the trackball cursor on the Exit button in the menu bar and click the left trackball button. The Wind Grid Display is deleted from the display and returns to an iconified state. If the Altitude Menu window is displayed, closing the Wind Grid Display also closes the Altitude Menu. Conversely, if the Altitude Menu window was closed by closing the Wind Grid Display, opening the Wind Grid Display also opens the Altitude Menu.

This operation is applicable when the Wind Grid Display displays wind data or temperature data.

7.3.3 Map Offset

The user can select a new center point for the center of the Wind Grid Display with a single command by using the following steps:

1. Position the trackball cursor on the Recenter button and click the left trackball button. The trackball cursor changes to an X when placed inside the Wind Grid Display area; a crosshair appears to indicate the center of the display area.
2. Position the trackball cursor on the geographic point of the center for the Wind Grid map and click the left button on the trackball. The Wind Grid Display is updated to show the new center. The Wind Grid map moves so that the selected geographic point is in the center of the Wind Grid Display area. The X cursor symbol changes to a normal arrow cursor. This operation is applicable when the Wind Grid Display shows wind or temperature data.

   If a point outside the Wind Grid map is selected, an error tone sounds.
3. To cancel the Recenter without selecting a geographic point on the Wind Grid, click the right button on the trackball. The Recenter button appears as inactive, the cursor changes back to the normal arrow shape, and the crosshair symbol is deleted from the center of the display.

7.3.4 Increasing/Decreasing the Range

The user can increase the number of miles shown on the Wind Grid map by using one of the following steps:

1. Position the trackball cursor on the Range Menu bar button and click the middle trackball button to increase the Range by one increment.

   The Wind Grid map is updated to the new range. The range value on the Range button is updated. The scale indicator is updated to reflect the new scale. If an attempt is made to adjust the range higher than the highest setting, an error tone sounds. This operation is applicable when the Wind Grid Display shows wind data or temperature data.

   OR

2. Position the trackball cursor on the Range Menu bar button and hold down the left trackball button to decrease the Range by more than one increment. When the Range setting reflects the desired value, the user releases the left trackball button.

   The Wind Grid map is updated to the new range. The range setting in the Range button is updated. The scale indicator is updated to reflect the new scale. If an attempt to adjust the range lower than the lowest setting is made, an error tone sounds. his operation is applicable when the Wind Grid Display shows wind data or temperature data.

7.3.5 Showing/Removing Temperature

The user can display temperature or wind data on the Wind Grid Display with a single command by using the following steps:

The user can show temperature data when the wind data is visible on the Wind Grid Display area. The Show/Remove Temperature button displays Show Temp.

1. Position the trackball cursor on the Show Temp button and click the left button on the trackball. The Wind Grid Display shows that the area is updated and shows temperature data (Centigrade). The menu bar button is updated to show Remove Temp. The user can remove temperature data when the temperature data is visible on the Wind Grid Display area and the Show/Remove Temperature button displays Remove Temp.
2. Position the trackball cursor on the Remove Temp button and click the left trackball button. Temperature data is deleted from the display area and the wind data (speed and direction) appears again. The menu bar button is updated to Show Temp.

7.3.6 Specifying Altitude

The user can select a specific altitude for the display of wind or temperature data on the Wind Grid Display using an Altitude Menu button or by manually typing in an altitude value. Use the following steps to specify an altitude for the Wind Grid Display:

1. Position the trackball cursor on the Altitude button in the Wind Grid Display Menu bar and click the left button on the trackball. The Altitude Menu opens. The current altitude appears in the input field in reverse video and the corresponding altitude button appears in reverse video.

2. To specify the altitude value by using an Altitude Menu button, position the trackball cursor on an Altitude Menu button and click the left trackball button. The selected Altitude Menu button appears in reverse video and the Altitude Menu button that was previously displayed in reverse video now appears as normal text. The following display results will occur:
    a. The input field is updated to display the selected altitude and the altitude field on the menu bar of the Wind Grid Display displays the new altitude in the lower left side of the menu bar.
    b. The display area of the Wind Grid Display is updated to reflect the new altitude.
    c. The menu remains displayed until the **Exit** button is selected.
3. To specify the altitude value by manually typing in a value, position the trackball cursor on the input field, click the left trackball button, and then type the desired altitude value (valid input range is 0 to 999 and blank). The following display results will occur:
    a. The user-entered text in the input field of the Altitude Menu is left justified.
    b. The input field displays the value entered in normal video.
4. Press the **Enter** key when typing is complete. The following display results will occur:
    a. If the text value entered does not correspond to one of the altitude value buttons, rounding will occur. For values below the halfway point between two altitude button values, the entered value is rounded down to the next lower altitude button value. For values at or above the halfway point between two altitude button values, the entered value is rounded up to the next higher altitude button value. Values of 591 to 999 are rounded to 590.
    b. The altitude value button appears in reverse video and the altitude value button previously displayed in reverse video appears in normal text.
    c. The input field displays the altitude entered in reverse video or is updated to display the selected altitude in reverse video if rounding occurred.
    d. The altitude field on the menu bar of the Wind Grid Display displays the new altitude in the lower left side of the menu bar and the Wind Grid Display data is updated to reflect the new altitude.
    e. The menu remains displayed until the **Exit** button is selected.

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8. NOTAMS VIEW

This chapter describes characteristics of the Notice to Airman (NOTAMS) View. Major topics covered are:

- Layout and Characteristics
- Associated Menus
- User Commands

8.1 Layout and Characteristics

The NOTAMS View provides the user with NOTAM messages. The NOTAM View can be accessed through the RA-Position NOTAM (**NOT**) toolbar button and is initially displayed at a default location. The view is also suppressed via the NOT toolbar button.

When a new NOTAM entry is received, a notification is displayed in both the NOTAMS View and the NOT toolbar button. When there is no data to populate the view, it consists of the view header only, which contains (from left to right) the:

- Menu (**M**) pick area
- title of the view
- current filter setting text (e.g., ALL ENTRIES)
- current sort order text (e.g., NOTAM ID)
- DELETE button
- PRINT button
- minimize (**-**) view pick area

The NOTAMS View automatically expands or contracts when an entry is added or deleted. A **scroll bar** is displayed when the number of lines exceeds the number specified in the NOTAMS View Menu LINES option (see Section 8.2.2, NOTAMS View Menu). Scroll bars are located on the left hand side of the view and allow the user to page up/down or scroll a single line at a time.

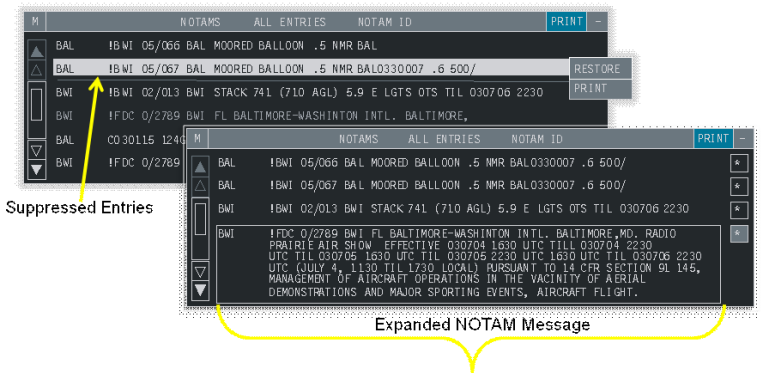

Figure 8–1. NOTAMS View

Figure 8–1, NOTAMS View, shows the NOTAMS View with suppressed entries and with an expanded entry showing the complete text for a NOTAMS entry. Suppressed NOTAM entries are displayed above a **gray line** in the Main Display area. If there are no suppressed entries, the gray line is deleted. A suppressed entry can be restored or printed via **RESTORE** or **PRINT** pop-up pick area respectively. If there are no suppressed entries, the RESTORE pick area is replaced with a **SUPPRESS** pick area, which allows the user to suppress a selected NOTAM entry. The RESTORE/PRINT and SUPPRESS/PRINT pick areas are accessed by left-clicking on a message entry.

Complete text for a NOTAM entry may be displayed via the NOTAM entry pick area (i.e. an asterisk (*) within a square box). Each NOTAM entry that exceeds 80 text characters is truncated and at the end of the entry, an additional information indicator (*) is provided to indicate that more text is eligible for display. When the additional information indicator is active, the background color of the indicator turns **gray**. A scroll bar is displayed when the number of lines exceeds the number specified in the NOTAM View Menu LINES option (see Section 8.2.2).

Resting the trackball cursor over a NOTAM View pick area provides a trackball cursor **selection emphasis box**. Areas that are not pickable do not receive a trackball cursor selection emphasis box. When the user attempts to pick a non-pickable area, the system will display a trackball circle (**X**) cursor.

Major components of the NOTAM View are the Title bar and Main Display area. A description of each component is provided in the following subsections.

8.1.1 Title Bar

The NOTAM View Title Bar allows the user to move and reposition the view and is comprised of the:

- Menu (**M**) pick area
- view title
- current filter setting text, (e.g., ALL ENTRIES)
- current sort order text (e.g., NOTAM ID)
- PRINT pick area
- minimize (**-**) view pick area

The Menu (**M**) pick area allows the user to access the NOTAM Messages View Menu (see Section 8.2.2) to perform the associated NOTAM View functions. The **Minimize View** (**-**) pick area allows the user to suppress the NOTAM View.

8.1.2 Main Display Area

NOTAM messages are displayed in the Main Display area of the view. Text in the NOTAMS View does not word-wrap. Each NOTAM entry that exceeds 80 text characters is truncated and, as noted previously in Section 8.1, Layout and Characteristics, at the end of the entry, an additional information indicator (*) is provided to indicate that more text is eligible for display.

When the entire NOTAM message is expanded, the view size expands, as needed, up to the value associated with the LINES setting (refer to Section 8.2.2). To display the full NOTAM message, the current NOTAM entries are pushed downwards or upwards. If the LINES value is less than the number of lines

associated with the expanded full NOTAM entry, a scroll bar is provided to view the entire message. To contract an expanded NOTAM entry, the user selects the * pick area again, thus acting as a toggle. As the entry is contracted, the view size may change if the number of lines is less than the LINES setting. If there were previously displayed eligible entries that were pushed downwards or upwards such that the entries were hidden from view then those NOTAM entries are redisplayed.

Following the cancellation or expiration of a NOTAMS entry, cancellation coding (i.e. the text is coded gray) is applied to the entry.

The gray text coding associated with the expiration and the cancellation of a NOTAM entry indicates that an entry will automatically be deleted by the system after an adapted amount of time. The cancellation coding will remain until the entry is deleted from the view. When an entry is coded for system removal, the user can still suppress/print or restore/print that entry. Suppressed NOTAM entries, requested to be viewed, have the same gray text coding.

The Suppress NOTAMS entry area is created when the user has suppressed at least one entry. A **gray line** depicted between unsuppressed NOTAMS entry area and the Suppressed NOTAMS entry area indicates that at least one SIGMETS entry has been suppressed. Entries are initially displayed in the unsuppressed SIGMETS entry area.

To view suppressed NOTAM entries, the user selects the VIEW SUPPRESS view menu pick area. All suppressed NOTAM entries are displayed and any subsequently suppressed NOTAM entry will also be displayed above the gray line in the Suppressed NOTAM entry area. To hide suppressed NOTAM entries, the user selects the HIDE SUPPRESS view menu pick area. All suppressed NOTAM entries that are displayed in the Suppressed NOTAM Entry Area will be hidden and any subsequently suppressed NOTAM entry will also be hidden. The choice, to view or hide suppressed NOTAM entries, can be made prior to suppressing an entry.

When a suppressed entry is selected to be restored, it will be deleted from the Suppressed Entry Area and placed in the Unsuppressed NOTAM Entry Area based on the current sort order relative to the other entries in this area. The selected sort order is independently applied to entries above and below the gray line. If the restored entry has been coded for system removal, then the entry retains the system removal gray text coding. Otherwise, the suppressed entry text coding is deleted and the text reverts to white.

The view automatically expands or automatically when the system adds or removes an entry or when the user suppresses and hides an entry. A scroll bar is displayed when the number of lines exceeds the number specified in the view menu LINES pick area. The view header will remain displayed when the last entry is deleted from the list.

A **left** or **middle** trackball button selection of an entry will display the RESTORE and PRINT pop-up pick areas when the NOTAM entry is in the Suppressed NOTAM Entry Area, or the SUPPRESS and PRINT pop-up pick areas, when the NOTAM entry is in the Unsuppressed NOTAM entry area. The pop-up pick areas are not available if the user has invoked the PRINT button in the view header.

NOTE: The pop-up pick areas will be displayed adjacent and to the right of the selected entry. If the pop-up pick areas cannot be displayed to the right of the entry, they will be displayed adjacent and to the left of the selected entry. If there is not enough space at the bottom of the display to display the pop-up pick areas, they will be vertically adjusted upwards.

8.2 Associated Menus

The following submenus can be accessed via the NOTAMS View:

- Filter Entries Menu
- NOTAMS View Menu
- Sort Menu

A brief description of each menu is provided in the following subsections.

8.2.1 Filter Entries Menu

Figure 8–2, Filter Entries Menu, provides the user with a method to filter NOTAM View messages. The Filter Entries Menu is accessed via the NOTAMS View Menu by selecting the FILTER ENTRIES option.

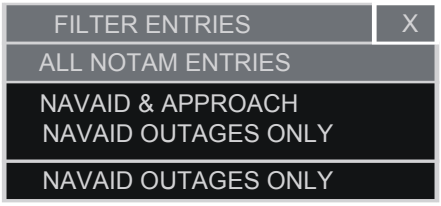

Figure 8–2. Filter Entries Menu

When the Filter Menu is opened, the trackball cursor is automatically placed on the ALL NOTAM ENTRIES menu option. One Filters Menu pick area is always active and only one pick area can be active at a time. The Filters Menu is displayed adjacent to the NOTAMS View Menu.

8.2.2 NOTAMS View Menu

From Figure 8–3, NOTAMS View Menu, the user can:

a. Set the number of lines in the NOTAMS View before scrolling is needed.
b. Set the font size in the NOTAMS View.
c. Set the text brightness in the NOTAMS View.
d. Set the filter criteria in the NOTAMS View.
e. Set the primary sort order in the NOTAMS View.
f. Specify to view or hide suppressed NOTAM entries in the NOTAMS View.
g. Print all NOTAM entries in the NOTAMS View.

The NOTAMS View Menu is accessed selecting the Menu (**M**) pick area in the far left corner of the NOTAMS View title bar with the left or middle trackball button.

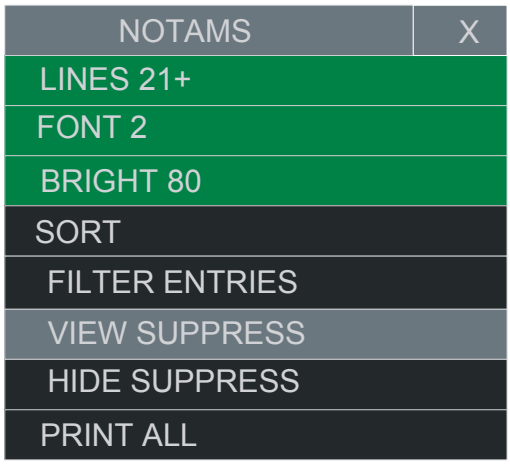

Figure 8–3. NOTAMS View Menu

When the NOTAMS View Menu is opened, the trackball cursor is automatically placed on the **VIEW SUPPRESS** Menu option. The **VIEW SUPPRESS** and **HIDE SUPPRESS** Menu options are mutually exclusive whereby selecting one deselects the other. One of the two is always active.

8.2.3 Sort Menu

Figure 8–4, Sort Menu, provides the user with a method to specify a primary sort order for entries in the NOTAMS View. The system will generate the secondary and subsequent sort order based on adaptation criteria.

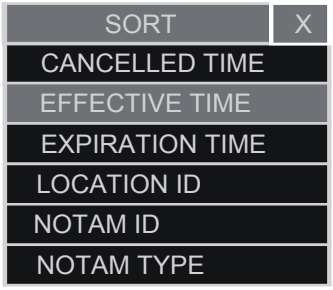

Figure 8–4. Sort Menu

The Sort Menu is accessed by selecting the SORT option on the NOTAMS View Menu and is displayed adjacent to the NOTAMS View Menu. When the Sort Menu is opened, the trackball cursor is automatically placed on the **EFFECTIVE TIME** option. One Sort Menu option is always active and only one option can be active at a time.

8.3 User Commands

This section describes the following NOTAM commands:

- Adjusting the Font Size

- Adjusting the Number of Lines
- Adjusting the Text Brightness
- Expanding/Contracting a Full NOTAM Entry
- Filtering NOTAM Entries
- Hiding Suppressed NOTAM Entries
- Printing a NOTAM Entry
- Removing a New Entry Indicator Coding in the NOTAMs View
- Restoring Suppressed NOTAM Entries to an Unsuppressed State
- Sorting NOTAM Entries
- Suppressing a NOTAMs Entry
- Viewing Suppressed NOTAMs Entries

CAUTION

Commands entered while a channel is in Pending mode are retained if the channel is promoted from Pending to Active mode. If a channel is promoted from Pending to Backup mode, these same commands are lost.

8.3.1 Adjusting the Font Size

The user can adjust the font size by using the following steps:

1. With the left or middle trackball button, select the **M** pick area in the NOTAMS View header. The NOTAMS View Menu appears. The default trackball cursor location is on the VIEW SUPPRESS menu pick area.
2. Position the trackball cursor on the view menu FONT pick area and press the left trackball button to decrement the FONT size or the middle trackball button to increment the FONT size.

   The font size is incremented or decremented. The trackball circle E cursor appears (and a single error tone sounds) when the user presses the left trackball button and there is no valid decrement value. The trackball circle P cursor appears (and a single error tone sounds) when the middle trackball button is selected and there is no valid increment value. The right trackball button is never valid for this view. The trackball circle I (invalid) cursor appears and a single error tone sounds when the right trackball button is selected.

8.3.2 Adjusting the Number of Lines

The user can adjust the number of lines by using the following steps:

1. With the left or middle trackball button, select the **M** pick area in the NOTAMS View header. The NOTAMS View Menu appears. The default trackball cursor location is on the VIEW SUPPRESS menu pick area.
2. Position the trackball cursor on the view menu LINES pick area and press the left trackball button to decrement the LINES number or the middle trackball button to increment the LINES number. The number of lines for the NOTAMS View is incremented or decremented.

a. The trackball circle E cursor appears (and a single error tone sounds) when the left trackball button is pressed and there is no valid decrement value. The trackball circle P cursor appears and a single error tone sounds when the middle trackball button is selected and there is no valid increment value. The right trackball button is never valid for this view. The trackball circle I (invalid) cursor appears and a single error tone sounds when the right trackball button is selected.

b. The trackball cursor will be attached to the LINES pick area such that if the location of the pick area changes due to incrementing or decrementing, the user can continue to increment/decrement without having to reposition the trackball cursor.

8.3.3 Adjusting the Text Brightness

The user can adjust the text brightness by using the following steps:

1. With the left or middle trackball button, select the **M** pick area in the NOTAMS View header.

   The NOTAMS View Menu appears. The default trackball cursor location is on the VIEW SUPPRESS menu pick area.

2. Position the trackball cursor on the view menu BRIGHT pick area and press the left trackball button to decrement the BRIGHT value or the middle trackball button to increment the BRIGHT value. The bright value for the NOTAMS View is incremented or decremented.

   The trackball circle E cursor appears and a single error tone sounds when the left trackball button is pressed and there is no valid decrement value. The trackball circle P cursor appears and a single error tone sounds when the middle trackball button is selected and there is no valid increment value. The right trackball button is never valid for this view. The trackball circle I (invalid) cursor appears and a single error tone sounds when the user selects the right trackball button.

8.3.4 Expanding/Contracting a Full NOTAM Entry

The user can expand or contract a full NOTAM entry by using the following steps:

1. With the left or middle trackball button, select the ***** pick area associated with the targeted NOTAM entry in the Suppressed NOTAM Entry Area or in the Unsuppressed NOTAM Entry Area.

   This action may be repeated.

   The selected NOTAM entry is fully expanded. The trackball cursor remains on the additional information indicator.

2. With the left or middle trackball button, again select the ***** pick area associated with the fully expanded NOTAM entry. The full NOTAM message associated with the selected NOTAM entry is contracted to a single line NOTAM entry.

8.3.5 Filtering NOTAM Entries

The user can filter NOTAM entries by using the following steps:

1. With the left or middle trackball button, select the **M** pick area in the NOTAMS View header. The NOTAMS View Menu appears. The default trackball cursor location is on the VIEW SUPPRESS menu pick area.
2. With the left or middle trackball button, select the FILTER ENTRIES view menu pick area. The Filter Entries Menu appears and the current Filters Entries Menu pick area is active. The default trackball cursor location is on the ALL NOTAM ENTRIES menu pick area.
3. With the left or middle trackball button, select one (of three) Filters Entries Menu options. The pick area is activated and the selected filter setting is invoked. The selected filter setting appears in the NOTAMS View header.
4. Close the Filter Entries Menu (by any pop-up menu method). The Filter Entries Menu is deleted from the display.

8.3.6 Hiding/Suppressed NOTAM Entries

The user can hide or suppress NOTAM entries by using the following step:

1. With the left or middle trackball button, select the **M** pick area in the NOTAMS View header. The NOTAMS View Menu appears. The default trackball cursor location is on the VIEW SUPPRESS menu pick area.
    a. The HIDE SUPPRESS pick area appears as active and all the NOTAM entries in the Suppressed NOTAM Entry Area are deleted from the Suppressed NOTAM Entry Area. The gray separator line remains. The VIEW SUPPRESS menu pick area is displayed as inactive.
    b. If there is no NOTAM entry in the Suppressed NOTAM Entry Area, the NOTAMS View does not change until a NOTAM entry is suppressed. When the HIDE SUPPRESS menu pick area is active and a NOTAM entry has not been suppressed, a gray line appears above the Unsuppressed NOTAM Entry Area and the suppressed entry does not appear in the Suppressed NOTAM Entry Area of the NOTAMS View.

8.3.7 Printing a NOTAM Entry

The user can print a selected NOTAM entry, print more than one NOTAM entry, or print all NOTAM entries eligible for display by using the following steps:

NOTE: Printing a NOTAM entry also acknowledges it.

Printing a Single NOTAM Entry

1. With the left or middle trackball button, select an entry in the Unsuppressed NOTAM Entry Area of the NOTAMS View. The selected entry is displayed in reverse video (in reverse video) and two pop-up pick areas are displayed: SUPPRESS (the default pick area) and PRINT. The trackball cursor is automatically positioned on the default pop-up pick area.
2. With the left or middle trackball button, select an entry in the Suppressed NOTAM Entry Area of the NOTAMS View. The selected entry is displayed in reverse video and two pop-up pick areas appear: RESTORE (the default pick area) and PRINT. The trackball cursor is automatically positioned on the default pop-up pick area.

3. With the left or middle trackball button, select the PRINT pop-up pick area. The selected entry is printed. The two pop-up pick areas and the reverse video on the entry is removed.

   If there was new entry indicator coding (white underscore for first field of the entry) on the selected entry, this is also removed following the successful completion of this action.

Printing Multiple NOTAM Entries

1. With the left or middle trackball button, select the PRINT button in the NOTAMS View header. The PRINT button in the NOTAMS View header is activated.

   No pop-up pick areas are available when the PRINT header button is activated.

2. With the left trackball button, select more than one NOTAM entry and with the middle trackball button, select the final entry for printing.

   a. As each NOTAM entry is selected, it is given user selection emphasis. The selected NOTAM entries are printed and the reverse video on all of the selected entries remains for a preset period of time (2 seconds) before it is deleted. The activation emphasis on the PRINT button, in the NOTAMS View header, is deleted.

   b. If there was new entry indicator coding (white underscore for the first field of the entry) on selected entries, this is also deleted after the successful completion of this action.

3. With the middle trackball button, select one NOTAM entry for printing.

   The selected NOTAM entry is printed and the user emphasis on the selected entry remains for a preset time (2 seconds) before it is deleted. The activation emphasis on the PRINT button, in the NOTAMS View header, is deleted. If there was new entry indicator coding (white underscore for the first field of the entry) on the selected entry, this is also deleted after the completion of this action.

Printing All the NOTAM Entries

1. With the left or middle trackball button, select the **M** pick area in the NOTAMS View header. The NOTAMS View Menu appears. The default trackball cursor location is on the VIEW SUPPRESS menu pick area.

2. With the left or middle trackball button, select the PRINT ALL pick area in the NOTAMS View Menu. All the NOTAM entries eligible for display are printed. If the Suppressed Entry Area is hidden, suppressed entries are not printed; if the Suppressed Entry Area is not hidden, suppressed entries are printed. Unsuppressed entries are always printed.

   The PRINT ALL menu pick area displays activation emphasis for two seconds after the successful completion of this action.

   If there was new entry indicator coding (white under score for the first field of the entry) for any of the selected entries, then this too is removed following the successful completion of this action.

8.3.8 Deleting New Entry Indicator Coding in the NOTAM View

The user can delete the new entry indicator coding for individual entries in the NOTAMS View by using the following steps:

Toggling the Entry and Performing No Action:

1. With the left or middle trackball button, select a NOTAM entry (not the entry's first field). The selected entry is displayed in reverse video and the two pop-up pick areas appear: SUPPRESS (the default pick area) and PRINT. The trackball cursor is automatically positioned on the default pop-up pick area.

   Only NOTAM entries in the Unsuppressed NOTAM Entry Area will have new entry indicator coding because the action of suppressing an entry also deletes the new entry indicator coding.
2. Move the trackball cursor off the SUPPRESS pop-up pick area and, with the left or middle trackball button, select the NOTAM entry (not the entry's first field) again.

   The reverse video on the entry is removed, the two pop-up pick areas are deleted along with the entry's new entry indicator coding.

Selecting the New Entry Pick Area

With the left or middle trackball cursor, select the new entry pick area. The new entry indicator coding for that entry is removed.

Selecting the Entry and Performing a Pop-up Pick Area Action

1. With the left or middle trackball button, select a NOTAM entry (not the entry's first field). The selected entry is displayed in reverse video and the two pop-up pick areas appear: SUPPRESS (the default pick area) and PRINT. The trackball cursor is automatically positioned on the default pop-up pick area.

   Only NOTAM entries in the Unsuppressed NOTAM Entry Area have new entry indicator coding because the action of suppressing an entry also removes the new entry indicator coding.
2. With the left or middle trackball button, select one of the two pop-up pick areas: SUPPRESS or PRINT. The reverse video on the entry is removed and the two pop-up pick areas are removed as well as the entry's new entry indicator coding.

   If suppressed is selected and the option HIDE SUPPRESS is active, the entry is deleted from display.

Selecting the Entry to Display the Full NOTAM

With the left or middle trackball button, select the additional information indicator (boxed asterisk pick area). The full NOTAM associated with the selected entry appears and the new entry indicator coding is removed.

8.3.9 Restoring Suppressed NOTAM Entries

The user can restore an entry to the unsuppressed state in the NOTAMS View by using the following steps:

1. If the VIEW SUPPRESS pick area in the NOTAMS View Menu is not activated, activate it by selecting, with the left or middle trackball button, the VIEW SUPPRESS menu pick area on the NOTAMS View Menu.

All entries that were displayed as a result of the VIEW SUPPRESS pick area appear in the Suppressed NOTAM Entry Area above the gray line.

2. With the left or middle trackball button, select a NOTAM entry in the Suppressed NOTAM Entry Area of the NOTAMS View.

   The entry is displayed in reverse video and two pop-up pick areas appear: RESTORE (the default pick area) and PRINT. The trackball cursor is automatically positioned on the default pop-up pick area.

3. With the left or middle trackball button, select the **RESTORE** pop-up pick area.

   The reverse video and the two pop-up pick areas are removed. The selected NOTAM entry is restored from the Suppressed NOTAM Entry Area to the Unsuppressed NOTAM Entry Area. Gray text on the suppressed entry coding is removed and normal text coding (white) is restored if the entry is not coded for system removal.

8.3.10 Sorting NOTAM Entries

The user can sort all NOTAM entries eligible for display. The Sort selection is applied independently to the suppressed NOTAM entry area and unsuppressed NOTAM entry area by using the following steps:

1. With the left of middle trackball button, select the **M** pick area in the NOTAMS View header. The NOTAMS View Menu appears. The default trackball cursor location is on the VIEW SUPPRESS menu pick area.
2. With the left or middle trackball button, select the **SORT** view menu pick area. The Sort Menu appears and the current Sort Menu pick area is active. The default trackball cursor location is on the EFFECTIVE TIME menu pop-up pick area.
3. With the left or middle trackball button, select one of six Sort Menu options. The pick area is activated and the selected sort setting is invoked. The selected sort setting is displayed in the NOTAMS View header.
4. Close the Sort Menu using any pop-up menu method. The Sort Menu is deleted from the display.

8.3.11 Suppressing a NOTAM Entry

The user can suppress individual NOTAM entries by using the following steps:

1. With the left or middle trackball button, select a NOTAM entry in the Unsuppressed NOTAM Entry Area. The entry is displayed in reverse video and two pop-up pick areas appear: SUPPRESS (the default pop-up pick area) and PRINT. The trackball cursor is automatically positioned on the default pick area.
2. With the left or middle trackball button, select the SUPPRESS pop-up default pick area. The selected NOTAM entry is suppressed from the Unsuppressed NOTAM Entry Area and the two pop-up pick areas are deleted.

   If the HIDE SUPPRESS view menu pick area is active, the suppressed entry is not displayed. If the VIEW SUPPRESS view menu pick area is active, the suppressed entry is deleted from the

Unsuppressed NOTAM Entry Area and redisplayed in the Suppressed NOTAM entry area with the suppressed entry text coding.

8.3.12 Viewing Suppressed NOTAM Entries

The user can view suppressed entries in the NOTAMS View by using the following steps:

1. With the left or middle trackball button, select the **M** pick area on the NOTAMS View header.

   The NOTAMS View Menu appears. The default trackball cursor location is on the VIEW SUPPRESS menu pick area.

2. With the left or middle trackball button, select the **VIEW SUPPRESS** pick area on the NOTAMS View Menu.

   The VIEW SUPPRESS pick area is activated and, if there are suppressed NOTAM entries, they appear in the Suppressed NOTAM Entry Area with suppressed entry text coding. The HIDE SUPPRESS menu pick area is displayed as inactive.

   If there is no suppressed NOTAM entry in the Suppressed NOTAM Entry Area, the NOTAMS View does not change until a NOTAM entry is suppressed. When the VIEW SUPPRESS menu pick area is active and when a NOTAM entry is suppressed, a gray line appears above the Unsuppressed NOTAM Entry Area and the suppressed NOTAM entry appears in the Suppressed NOTAM Entry Area with suppressed entry text coding.

9. GI MESSAGES VIEW

This chapter describes characteristics of the General Information (GI) Messages View. Major topics covered are:

- Layout and Characteristics
- Associated Menus
- User Commands

9.1 Layout and Characteristics

The General Information (GI) Messages View provides the user with GI messages. When there is no data to populate the view, it consists of the view header only, which contains (from left to right) the:

- Menu (**M**) pick area
- title of the view
- DELETE button
- PRINT button
- minimize view (**-**) pick area

The GI Messages View can be accessed via the RA-Position General Information (**GI**) toolbar button and is initially displayed at a default location. When a new GI entry is received, a notification is displayed on both the GI Messages View and the **GI** toolbar button. The view can be suppressed via the **GI** toolbar button. The GI View automatically expands or contracts when an entry is added or deleted. A **scroll bar** is displayed when the number of lines exceeds the number specified in the GI Messages View Menu LINES option (see Section 9.2.2, GI Messages View Menu). Multiple GI messages can be printed or deleted using the Title bar **PRINT** or **DELETE** buttons respectively. The **Minimize View** (**-**) pick area allows the user to suppress the GI Messages View.

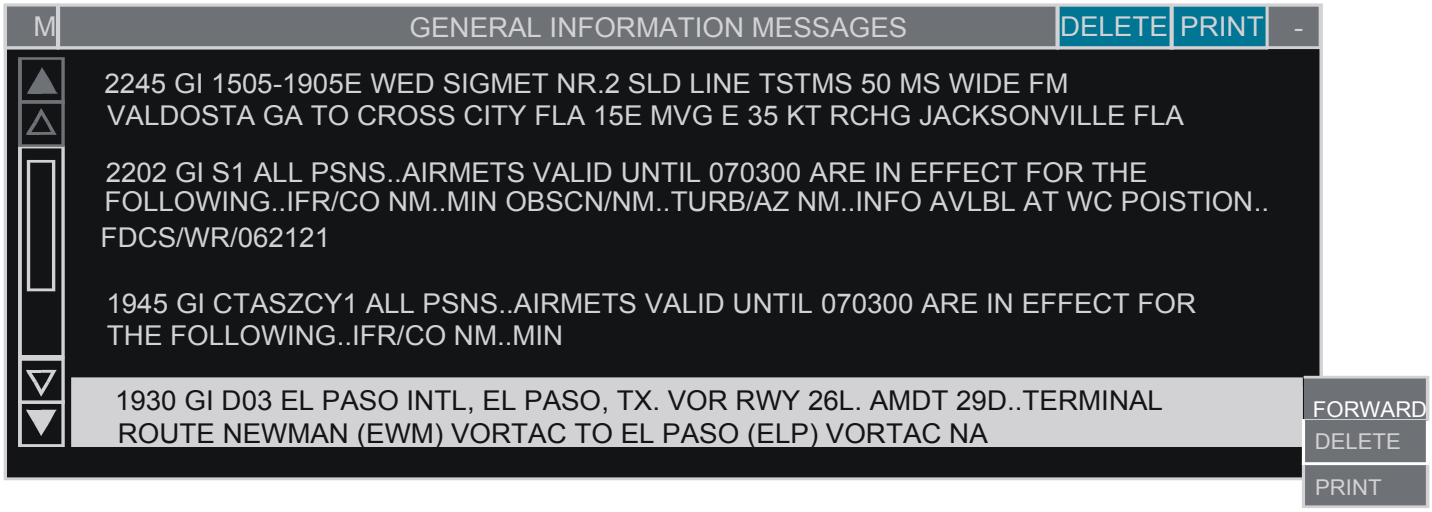

Figure 9–1. GI Messages View

Major components of Figure 9–1, GI Messages View, are the Title bar and Main Display area. A description of each component is provided in the following subsections.

9.1.1 Title Bar

The GI Messages View Title Bar allows the user to move and reposition the view and is comprised of the:

- Menu (**M**) pick area
- view title
- minimize view (**-**) pick area

The Menu (**M**) pick area allows the user to access GI Messages View Menu (see Section 9.2.2) to perform the associated GI Message View functions. The Minimize View (**-**) pick area allows the user to suppress the GI Messages View. With the left or the middle trackball button, the user can select the **view title** pick area and move the GI Messages View. The trackball cursor is attached to the top left corner of the move frame and the move frame moves with the trackball cursor movement.

9.1.2 Main Display Area

GI Messages are displayed in the Main Display area of the view. When there is a new entry in the GI Messages View, the first field of the entry contains a new entry indicator (_), and allows the user to remove the new entry indicator coding and display the message time in the first field.

The maximum vertical adjustment, when there is data to populate the view, is dependent on the LINES value set in the GI Messages View Menu (see Section 9.2.2). The minimum LINES value is set to three. Text, in the GI Messages View will word wrap such that no line of text is greater than 80 characters on a line. The complete text for an entry can be viewed if there is no new entry attention coding. To view the complete text, the user selects anywhere in the entry or anywhere in the entry.

Messages can also be forwarded to other sector(s) or position(s). Three pop-up menus (i.e. **FORWARD, DELETE,** and **PRINT**) are provided per entry to allow the user to perform these actions. Selecting the

left or middle trackball button of an entry displays the **FORWARD, DELETE,** and **PRINT** pop-up menus. By default, the trackball cursor will be automatically positioned on the DELETE pop-up menu option. The **FORWARD, DELETE** and **PRINT** pop-up menus are not available if the user has invoked the PRINT or DELETE buttons in the view header.

NOTE: The pop-up pick areas will be displayed adjacent and to the right of the selected entry. If the pop-up pick areas cannot be displayed to the right of the entry, they will be displayed adjacent and to the left of the selected entry. If there is not enough space at the bottom of the display to display the pop-up pick areas, they will be vertically adjusted upwards.

9.2 Associated Menus

The following submenus/windows can be accessed via the GI Messages View:

- Forward Position Selection Window
- GI Messages View Menu

A brief description of each menu is provided in the following subsections.

9.2.1 Forward Position Selection Window

Figure 9–2, Forward Position Selection Pop-up Window, provides the user with a method to forward a selected GI message entry to adapted area name(s), sector identifier(s) or AT Specialist identifier(s) within their center. The user may cancel forwarding of the GI message entry to the selected areas, sectors, or positions and deselect the GI entry by closing the Forward Position Selection Pop-up Window before entering the last selected area name, sector identifier or position. The Forward Position Selection Pop-up Window is accessed by selecting an entry in the GI Messages View and picking the FORWARD pop-up menu.

Figure 9–2 shows the Forward Selection window with the response section for displaying error messages displayed and the NEW ORLEAN area and the AT Specialist position coded with gray text indicating that they have had the GI message entry routed to them previously.

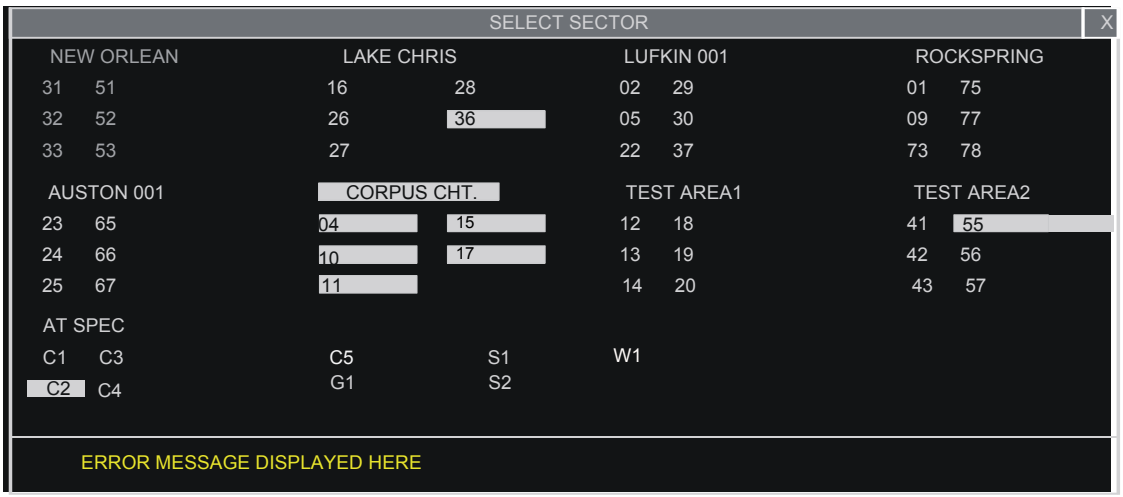

Figure 9–2. Forward Position Selection Pop-up Window

The Forward Position Selection window contains the following pick areas:

a. **X**: allows the user to close the Forward Position Selection Pop-up Window. Centered in a two character pick area.

b. **Area Name**: allows the user to select all the sector positions within an area as well as the AT Specialist, as adapted, associated with the selected area.

c. **Sector ID**: allows the user to select an individual sector position.

d. **AT SPEC**: allows the user to select of all the AT Specialists positions as adapted for the facility.

e. **AT Specialist ID**: allows the user to select an individual AT Specialist position.

There is up to four areas worth of data displayed in each row. For each of the four areas there will be two columns of sectors. If the number of sectors in an area is an even number, divide the sectors evenly between the two columns filling the first column and then the second column from top to bottom. If the number of sectors is odd, take the next highest even number and divide it by two to determine the number of rows and then divide the sectors between the two columns filling all of the rows in the first column followed by as many rows in the second column as needed.

The **AT SPEC** header will be displayed on its own row below the other areas. Up to 16 AT Specialist positions may be displayed in eight columns with two positions per column. The positions will start in the first column and be displayed top to bottom and left to right until all are displayed. The **response section** appears at the bottom of the Forward Position Selection Pop-up Window displaying any error message when the FORWARD pick area invocation was not successfully executed. The following message is displayed in the response area section if the response to a request to forward a GI message has not been received within a preset length of time: **ERROR – FORWARD GI MESSAGE REQUEST FAILED**.

9.2.2 GI Messages View Menu

The GI Messages View Menu provides the user with the capability to:

- set the number of lines in the General Information Messages View before scrolling is needed
- set the font size in the General Information Messages View
- set the text brightness in the General Information Messages View
- print all of the GI Messages in the GI Message View

The General Information Messages View Menu may be accessed through the GI Messages View by selecting the **M** pick area in the view header with the left or middle trackball button.

Figure 9–3, GI Messages View Menu, depicts the default **PRINT ALL** Menu pick area displayed as active.

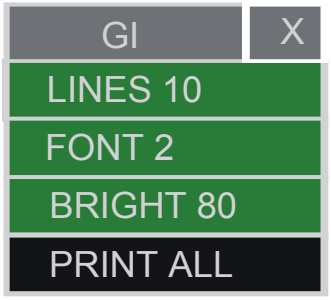

Figure 9–3. GI Messages View Menu

The GI Messages View Menu contains the following pick areas:

a. **X**: allows the user to close the General Information Messages View Menu. Centered in a two character pick area.

b. **LINES**: allows the user to increment (middle trackball button) or decrement (left trackball button) the number of lines displayed in the view. This pick area auto repeats such that if the user holds down the left or middle trackball button the value will continue to decrement or increment respectively until the button is released or until the value range limits, 3 and 21+, are reached. The range is 3 to 21+. The nominal value is 10. A scroll bar is displayed when there are more lines of data to be displayed than the number of lines specified in the LINES pick area. The trackball cursor will be attached to the LINES pick area such that if the location of the LINES pick area changes due to an increment/decrement action the user can continue incrementing/decrementing without having to reposition the trackball cursor.

c. **FONT**: allows the user to increment (middle trackball button) or decrement (left trackball button) the view font size. The range is 1 to 3. The nominal value is 2. As the font size gets bigger the view size increases. As the font size gets smaller, the view size decreases. The trackball cursor will be attached to the FONT pick area such that if the location of the FONT pick area changes due to an increment/decrement action the user can continue incrementing/decrementing without having to reposition the trackball cursor. The menu font size is not affected by the changes in font values.

d. **BRIGHT**: allows the user to increment (middle trackball button) or decrement (left trackball button) the brightness value to be used for the view text. This button is an auto repeat button such that if the user holds down the left or middle trackball button the value will continue to decrement or increment respectively until the button is released or until the value range limits, 0 and 100, are reached. The range is 0 – 100 in increments of 2. The nominal value is 80. The view header background shading is a fixed color and not affected by the BRIGHT setting.

e. **PRINT ALL**: allows the user to print all entries eligible for display.

9.3 User Commands

This section describes the following General Information (GI) Message commands:

- Adjusting the Font Size
- Adjusting the Number of Lines
- Adjusting the Text Brightness
- Deleting a GI Messages View Entry
- Forward a GI Message Entry to Selected Positions
- Printing a GI Message View Entry
- Removing a New Entry Indicator Coding in the GI Message View

CAUTION

Commands entered while a channel is in Pending mode are retained if the channel is promoted from Pending to Active mode. If a channel is promoted from Pending to Backup mode, these same commands are lost.

9.3.1 Adjusting the Font Size

The user can adjust the font size by using the following steps:

1. With the left or middle trackball button, select the **M** pick area in the General Information Messages View header. The GI Messages View Menu appears. The default trackball cursor location is on the PRINT ALL menu pick area.
2. Position the trackball cursor on the view menu FONT pick area and press the left trackball button to decrement the FONT size; press the middle trackball button to increment the FONT size. The font size for the GI Messages View is incremented or decremented.
   a. The trackball E cursor appears and a single error tone sounds when the left trackball button is pressed and there is no valid decrement value.
   b. The trackball P cursor appears and a single error tone sounds when the middle trackball button is selected and there is no valid increment value. The right trackball button is never valid for this view.
   c. The trackball I (invalid) cursor appears and a single error tone sounds when the right trackball button is selected. The trackball cursor is attached to the FONT pick area so that if the location of the pick area changes due to an increment or decrement action, the user can continue to increment/decrement without having to reposition the trackball cursor.

9.3.2 Adjusting the Number of Lines

The user can adjust the number of lines by using the following steps:

1. With the left or middle trackball button, select the **M** pick area in the General Information Messages View header. The General Information Messages View Menu appears. The default trackball cursor location is on the PRINT ALL menu pick area.
2. Position the trackball cursor on the view menu LINES pick area and press the left trackball button to decrement the LINES number or press the middle trackball button to increment the LINES number. The number of lines for the General Information Messages View is incremented or decremented.
   a. When the left trackball button is pressed and there is no valid decrement value, the trackball E cursor appears and a single error tone sounds. When the middle trackball button is pressed and there is no valid increment value, the trackball P cursor appears and a single error tone sounds. The right trackball button is never valid for this view.
   b. When the right trackball button is pressed, the trackball I cursor (for invalid) will appear and a single error tone will sound.

   The trackball cursor is attached to the LINES pick area so that if the location of the pick area changes due to incrementing or decrementing, the user can continue this action without repositioning the trackball cursor.

9.3.3 Adjusting the Text Brightness

The user can adjust the text brightness by using the following steps:

1. With the left or middle trackball button, select the **M** pick area in the General Information Messages View header. The General Information Messages View Menu appears. The default trackball cursor location is on the PRINT ALL menu pick area.
2. Position the trackball cursor on the view menu BRIGHT pick area and press the left trackball button to decrement the BRIGHT value; press the middle trackball button to increment the BRIGHT value. The bright value for the General Information Messages View is incremented or decremented.
   a. When the left trackball button is pressed and there is no valid decrement value, the trackball E cursor appears and a single error tone sounds. When the middle trackball button is pressed and there is no valid increment value, the trackball P cursor appears and a single error tone sounds. The right trackball button is never valid for this view.
   b. When the right trackball button is pressed, the trackball I (invalid) cursor appears and a single error tone sounds.

9.3.4 Deleting a GI Message View Entry

The user can delete a selected GI message View Entry by using the following steps:

Deleting a Pop-up

1. With the left or middle trackball button, select a **GI** Message entry. The selected entry is displayed in reverse video and three pop-up pick areas: FORWARD, DELETE (the default pick area), and PRINT. The trackball cursor is automatically positioned on the default pop-up pick area.
2. With the left or middle trackball button, select the **DELETE** pop-up pick area. The selected entry is deleted. The three pop-up pick areas and the user selection emphasis on the entry are deleted.

If there was a new entry coding, the numeric indicator in the General Information Messages View toolbar button is decremented.

Deleting Multiple GI Messages

1. With the left or middle trackball button, select the **DELETE** button in the General Information Messages View header. The DELETE button is activated.

   No pop-up pick areas are available when the DELETE header button is activated.

2. With the left trackball button, select more than one GI Message entry and with middle trackball button select the final entry for deleting.

   As each entry is selected, it is given user selection emphasis. The selected GI Message entries are deleted. The activation emphasis on the DELETE button in the GI Messages View header is deleted. If there was new entry coding, the numeric indicator in the General Information Messages View toolbar button is decremented.

3. With the middle trackball button, select one GI Message entry to delete.

   The selected entry is deleted. The activation emphasis on the DELETE button is deleted. If there was a new entry coding, the numeric indicator in the General Information Messages View toolbar button is decremented.

9.3.5 Forwarding a GI Message Entry to Selected Positions

The user can forward a GI Message Entry to selected positions by using the following steps:

1. With the left or middle trackball button, select a GI message entry in the General Information Messages View. The selected entry is displayed in reverse video and three pop-up pick areas appear: FORWARD, DELETE (the default pick area), and PRINT. The trackball cursor is automatically positioned on the default pop-up pick area.
2. With the left or middle trackball button, select the **FORWARD** pop-up pick area. The three pop-up pick areas are deleted and the Forward Position Selection Pop-up Window appears with the default trackball cursor location on the X.

   If there was a new entry indicator coding (a white underscore for the first field of the entry) on the selected entry, it is also deleted. The numeric indicator in the General Information Messages View toolbar button is decremented.

   If a GI message entry is forwarded, the previous recipients of that GI message entry will be de-emphasized (grayed-out) and cannot be selected. Only those area(s), sector(s), or position(s) that have not had the GI message entry previously routed to them are eligible recipients for the forwarding of the GI message entry.

3. With the left trackball button, select more than one area name, sector identifier, or AT Specialist position.
4. Select the final area name, sector identifier, or AT Specialist position with the middle mouse button. As each area name, sector identifier, or AT Specialist position is selected, it appears in reverse video.

If the processing is successful, the GI message entry is forwarded to the selected area name(s), sector identifier(s), and AT Specialist Position(s), the selection emphasis is deleted from the selected GI message entry, and the Forward Position Selection Pop-up Window closes.

If the processing is not successful, the selected GI message entry retains the selection emphasis in the General Information Messages View and the selection emphasis remains in the Forward Position Selection Pop-up Window. This window remains open and an error message appears in the response section of the window.

5. Repeat the selection process or close the Forward Position Selection Pop-up window. If this window is closed, there will be no change and the error message will be deleted.
6. With the middle trackball button, select one area name, one sector identifier, or one AT Specialist position. The area name, sector identifier, or AT Specialist position appears in reverse video.

   If the processing is successful, the GI message entry is forwarded to the selected area name, sector identifier, or AT Specialist position, the selection emphasis is removed from the selected GI message entry, and the Forward Position Selection Pop-up Window is closed.

   If the processing is not successful, the selected GI message entry retains the selection emphasis in the General Information Messages View and the selection emphasis remains in the Forward Position Selection Pop-up Window. This window remains open and an error message appears in the response section of the window.
7. Repeat the selection process or close the Forward Position Selection Pop-up Window. If the Window is closed, there will be no change and the error message will be deleted.

9.3.6 Printing a GI Message View Entry

The user can print a selected GI message entry, print more than one GI message entry, or print all the GI messages eligible for display by using the following steps:

NOTE: Printing a GI message entry also acknowledges it.

Print a Single GI Message Entry

1. With the left or middle trackball button, select an entry in the GI Messages View. The selected entry is displayed in reverse video and three pop-up pick areas appear: FORWARD, DELETE (the default pick area), and PRINT. The trackball cursor is automatically positioned on the default pop-up pick area.
2. With the left or middle trackball button, select the **PRINT** pop-up pick area. The selected entry is printed. The three pop-up pick areas and the user selection emphasis on the entry are deleted.

   If there was new entry indicator coding (white underscore for the first field of the entry) on the selected entry, it is also deleted after the successful completion of this action and the numeric indicator in the General Information Messages View toolbar button is decremented.

Printing Multiple GI Message View Entries

1. With the left or middle trackball button, select the **PRINT** button in the General Information Messages View header. The PRINT button is activated.

No pop-up pick areas are available when the PRINT header button is activated.

2. With the left trackball button, select more than one GI Message entry and with middle trackball button select the final entry for printing.
   a. As each entry is selected, it is given user selection emphasis. The selected GI Message entries are printed and the user selection emphasis on all the selected entries remains for two seconds before it is deleted. The activation emphasis on the PRINT button is deleted.
   b. If there was new entry indicator coding (white underscore for the first field of the entry) on selected entries, it is also deleted after the successful completion of this action and the numeric indicator in the General Information Messages View toolbar button is decremented.
3. With the middle trackball button, select one GI Message entry for printing. The selected entry is printed and the user selection emphasis on the entry remains for two seconds before it is deleted. The activation emphasis on the PRINT button is deleted.

   If there was a new entry indicator coding (white underscore for the first field of the entry) on the selected entry, it is also deleted after the successful completion of this action and the numeric indicator in the GI Messages View toolbar button is decremented.

Printing All the GI Message Entries

1. With the left or middle trackball button, select the **M** pick area in the General Information Messages View header. The General Information Messages View Menu appears. The default trackball cursor location is on the PRINT ALL menu pick area.
2. With the left or middle trackball button, select the **PRINT ALL** pick area in the General Information Messages View Menu. All the entries eligible for display are printed.

   The PRINT ALL menu pick area displays activation emphasis for 2 seconds after the successful completion of this action. If there was a new entry indicator coding (white underscore for the first field of the entry) for any of the selected entries, it is also deleted after the successful completion of this action and the numeric indicator in the General Information Messages View toolbar button is decremented.

9.3.7 Removing New Entry Indicator Coding

The user can remove the new entry indicator coding for individual entries in the GI Messages View. New Entry Indicator Coding may also be removed from multiple GI Message entries when the user prints all GI Message entries, multiple GI Message entries, and when the user deletes multiple GI Message entries.

Toggling the Entry Only

1. With the left or middle trackball button, select a GI Message entry (not the entry's first field, time). The selected entry is displayed in reverse video and three pop-up pick areas appear: FORWARD, DELETE (the default pick area), and PRINT. The trackball cursor is automatically positioned on the default pop-up pick area.
2. Reposition the trackball button off the DELETE pop-up pick area and, with the left or middle trackball button, select the GI Message entry (not the entry's first field) again.

The user selection emphasis for the entry is deleted and the three pop-up pick areas are deleted as well as the entry's new entry indicator coding. The numeric indicator in the General Information Messages View toolbar button is decremented.

Selecting the New Entry Pick Area

The user can use the left or middle trackball button to select the new entry pick area: time field. The new entry indicator coding for that entry is deleted and the numeric indicator in the General Information Messages View toolbar button is decremented.

Selecting the Entry and Performing a Pop-up Pick Area Action

1. With the left or middle trackball button, select a GI Message entry (not the entry's first field). The selected entry is displayed in reverse video and three pop-up pick areas appear: FORWARD, DELETE (the default pick area), and PRINT. The trackball cursor is automatically positioned on the default pop-up pick area.
2. With the left or middle trackball button, select one of the three pop-up pick areas: **FORWARD**, **DELETE**, or **PRINT**.
    a. If DELETE or PRINT is selected, the user selection emphasis for the entry is deleted, the action associated with the pop-up pick area is performed, and the three pop-up pick areas are deleted as well as the entry's new entry indicator coding. The numeric indicator in the General Information Messages View toolbar button is decremented.
    b. If FORWARD is selected, the user selection emphasis for the entry is not removed, the Forward Position Selection Pop-up Window appears, and the three pop-up pick areas are removed as well as the entry's new entry indicator coding. The numeric indicator in the General Information Messages View toolbar button is decremented. In the case of the DELETE action, the entire entry is deleted from the display.

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10. SIGMETS VIEW

This chapter describes characteristics of the Significant Meteorological Information (**SIGMETS**) View. Major topics covered are:

- Layout and Characteristics
- Associated Menus
- User Commands

10.1 Layout and Characteristics

The SIGMETS View provides the user with SIGMETS messages. The SIGMETS View may be accessed through the RA-Position SIGMETS (**SIG**) toolbar button and is initially displayed at a default location. The view is also suppressed via the SIG toolbar button.

When a new SIGMETS entry is received, a notification is displayed in both the SIGMETS View and the SIG toolbar button. When there is no data to populate the view, it consists of the view header only, which contains (from left to right) the:

- Menu (**M**) pick area
- title of the view
- PRINT button
- minimize view (**-**) pick area

The SIGMETS View automatically expands or contracts when an entry is added or deleted. A **scroll bar** is displayed when the number of lines exceeds the number specified in the SIGMETS View Menu LINES option (see Section 10.2.1, SIGMETS View Menu).

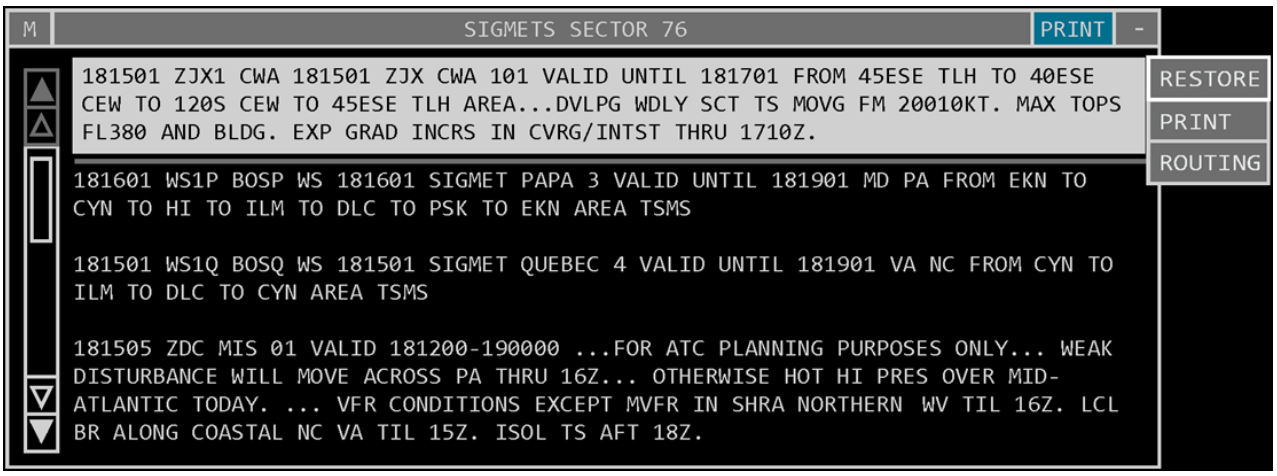

Figure 10–1. SIGMETS View

Figure 10–1, SIGMETS View, shows the SIGMETS View with suppressed entries and with an expanded entry showing the complete text for a SIGMETS entry. Suppressed SIGMETS entries are displayed above

a **gray line** in the Main Display area. If there are no suppressed entries, the gray line is removed. A suppressed entry can be restored or printed via **RESTORE** or **PRINT** pop-up pick area respectively. If there are no suppressed entries, the RESTORE pick area is replaced with a **SUPPRESS** pick area, which allows the user to suppress a selected SIGMETS entry. The RESTORE/PRINT and SUPPRESS/PRINT pick areas are accessed by left-clicking on a message entry.

Complete text for a SIGMETS entry may be displayed via the SIGMETS entry pick area (i.e. an asterisk (*) within a square box). Each SIGMETS entry that exceeds 80 text characters is truncated and at the end of the entry, an additional information indicator (*) is provided to indicate that more text is eligible for display. When the additional information indicator is active, the background color of the indicator turns **gray**. A scroll bar is displayed when the number of lines exceeds the number specified in the SIGMETS View Menu LINES option (see Section 8.2.2). Scroll bars are located on the left hand side of the view and allow the user to page up/down or scroll a single line at a time.

Resting the trackball cursor over a SIGMETS View pick area provides a trackball cursor **selection emphasis box**. Areas that are not pickable do not receive a trackball cursor selection emphasis box. When the user attempts to pick a non-pickable area, the system will display a trackball circle (**X**) cursor.

Major components of the SIGMETS View are the **Title bar** and **Main Display** area. A description of each component is provided in the following subsections.

10.1.1 Title Bar

The SIGMETS View Title Bar allows the user to move and reposition the view and is comprised of the:

- Menu (**M**) pick area
- view title
- PRINT pick area
- minimize (**-**) view pick area

The Menu (**M**) pick area allows the user to access the SIGMETS View Menu (see Section 10.2.1) to perform the associated SIGMETS View functions. The **Minimize View (-)** pick area allows the user to suppress the SIGMETS View.

10.1.2 Main Display Area

SIGMETS messages are displayed in the Main Display area of the view. Text in the SIGMETS View does not word-wrap. Each SIGMETS entry that exceeds 80 text characters is truncated and, as noted previously in Section 10.1, Layout and Characteristics, at the end of the entry, an additional information indicator (*) is provided to indicate that more text is eligible for display.

When there is a suppressed SIGMET entry, a gray line is placed at the top of the Unsuppressed SIGMET Entry Area. To view the suppressed SIGMET entries, the user selects the VIEW SUPPRESS view menu pick area. All suppressed SIGMET entries are displayed and any subsequently suppressed SIGMET entries are also displayed above the gray line in the Suppressed SIGMET entry area. To hide suppressed SIGMET entries, the user selects the HIDE SUPPRESS view menu. All suppressed SIGMET entries that appear in the Suppressed SIGMET Entry Area are hidden and any subsequently suppressed SIGMET entry are also hidden.

When a suppressed entry is selected to be restored (via RESTORE pop-up menu), it will be placed in the Unsuppressed SIGMET Entry Area based on the current sort order relative to the other entries in this area. The selected sort order is independently applied to entries above and below the gray line. The suppressed entry **gray text** coding is removed and the text reverts to **white** when the SIGMET entry is moved from the Suppressed SIGMET Entry Area into the Unsuppressed SIGMET Entry Area.

The view automatically expands and automatically contracts when the system adds or removes an entry and when the user suppresses and hides an entry. Scroll bars are displayed when the number of lines exceeds the number specified in the SIGMETS View Menu LINES option. The view header will remain displayed when the last entry is removed from the list.

A **left** or **middle** trackball button selection of an entry will display the RESTORE and PRINT pop-up pick areas when the SIGMETS entry is in the Suppressed SIGMETS Entry Area, or the SUPPRESS and PRINT pop-up pick areas, when the SIGMETS entry is in the Unsuppressed SIGMETS entry area. The pop-up pick areas are not available if the user has invoked the PRINT button in the view header.

NOTE: The pop-up pick areas will be displayed adjacent and to the right of the selected entry. If the pop-up pick areas cannot be displayed to the right of the entry, they will be displayed adjacent and to the left of the selected entry. If there is not enough space at the bottom of the display to display the pop-up pick areas, they will be vertically adjusted upwards.

10.2 Associated Menus

The SIGMETS View has one submenu; the SIGMETS View Menu. A brief description of this menu is provided in the following subsection.

10.2.1 SIGMETS View Menu

The SIGMETS View Menu provides the capability to:

- set the number of lines in the SIGMETS View before scrolling is needed
- set the font size in the SIGMETS View
- set the text brightness in the SIGMETS View
- specify to view or hide suppressed SIGMET entries in the SIGMETS View
- print all of SIGMET entries in the SIGMETS View

Figure 10–2, SIGMETS View Menu, is accessed selecting the Menu (**M**) pick area in the far left corner of the NOTAMS View title bar with the left or middle trackball button.

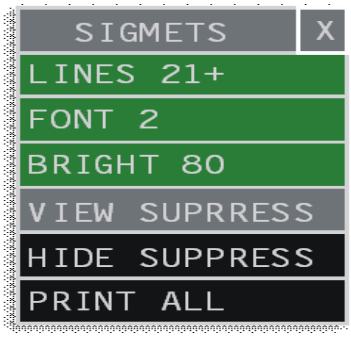

Figure 10–2. SIGMETS View Menu

When the SIGMETS View Menu is opened, the trackball cursor is automatically placed on the **VIEW SUPPRESS** Menu option. The **VIEW SUPPRESS** and **HIDE SUPPRESS** Menu options are mutually exclusive whereby selecting one de-selects the other. One of the two is always active.

10.3 User Commands

This section describes the following SIGMET commands:

- Adjusting the Font Size
- Adjusting the Number of Lines
- Adjusting the Text Brightness
- Hiding or Suppressing SIGMET Entries
- Printing a SIGMET Entry
- Removing New Entry Coding in the SIGMET View
- Restoring Suppressed SIGMET Entries
- Suppressing a SIGMET Entry
- Viewing Suppressed SIGMET Entries

CAUTION

Commands entered while a channel is in Pending mode are retained if the channel is promoted from Pending to Active mode. If a channel is promoted from Pending to Backup mode, these same commands are lost.

10.3.1 Adjusting the Font Size

The user can adjust the font size by using the following steps:

1. With the left or middle trackball button, select the **M** pick area in the SIGMETS View header. The SIGMETS View Menu appears; the default trackball cursor location is on the View Suppress Menu pick area.

2. Position the trackball cursor on the view menu FONT pick area and press the left trackball button to decrement the font size or the middle trackball button to increment the font size. The font size for the SIGMETS View is incremented or decremented.
   a. When the left trackball button is pressed and there is no valid decrement value, the trackball E cursor appears and a single error tone sounds.
   b. When the middle trackball button is pressed and there is no valid increment value, the trackball P cursor appears and a single error tone sounds. The right trackball button is never valid for this view.
   c. When the right trackball button is pressed, the trackball I (invalid) cursor appears and a single error tone sounds.

   The trackball cursor will be attached to the Font pick area so that if the location of the pick area changes due to incrementing or decrementing, the user can continue this action without repositioning the trackball cursor.

10.3.2 Adjusting the Number of Lines

The user can adjust the number of lines by using the following steps:

1. With the left or middle trackball button, select the **M** pick area in the SIGMETS View header. The SIGMETS View Menu appears. The default trackball cursor location is on the VIEW SUPPRESS menu pick area.
2. Position the trackball cursor on the view menu LINES pick area and press the left trackball button to decrement the LINES number; press the middle trackball button to increment the LINES number. The number of lines for the SIGMETS View is incremented or decremented.
   a. When the left trackball button is pressed and there is no valid decrement value, the trackball E cursor appears and a single error tone sounds.
   b. When the middle trackball button is pressed and there is no valid increment value, the trackball P cursor appears and a single error tone sounds.
   c. The right trackball button is never valid for this view. When the right trackball button is pressed, the trackball I cursor (for invalid) appears and a single error tone sounds. The trackball cursor will be attached to the Lines pick area so that if the location of the pick area changes due to incrementing or decrementing, the user can continue this action without repositioning the trackball cursor.

10.3.3 Adjusting the Brightness

The user can adjust the brightness by using the following steps:

1. With the left or middle trackball button, select the **M** pick area in the SIGMETS View header. The SIGMETS View Menu appears. The default trackball cursor location is on the VIEW SUPPRESS menu pick area.

2. Position the trackball cursor on the view menu BRIGHT pick area and press the left trackball button to decrement the BRIGHT value; press the middle trackball button to increment the BRIGHT value. The bright value for the SIGMETS View is incremented or decremented.
    a. When the left trackball button is pressed and there is no valid decrement value, the trackball E cursor appears and a single error tone sounds.
    b. When the middle trackball button is selected and there is no valid increment value, the trackball P cursor appears and a single error tone sounds. The right trackball button is never valid for this view.
    c. When the right trackball button is selected, the trackball I (invalid) cursor appears and a single error tone sounds.

10.3.4 Hiding/Suppressing SIGMET Entries

The user can hide suppressed SIGMET entries so that only unsuppressed SIGMET entries appear by using the following steps:

1. With the left or middle trackball button, select the **M** pick area in the SIGMETS View header. The SIGMETS View Menu appears. The default trackball cursor location is on the VIEW SUPPRESS menu pick area.
2. With the left or middle trackball button, select the **HIDE SUPPRESS** pick area in the SIGMETS View Menu. The HIDE SUPPRESS pick area appears as active and all SIGMET entries displayed in the Suppressed SIGMET Entry Area are deleted from the Suppressed SIGMET Entry Area. The gray separator line remains. The VIEW SUPPRESS menu pick area is shown as inactive.
3. With the left or middle trackball button, select the **HIDE SUPPRESS** pick area in the SIGMETS View Menu.
    a. If no SIGMET entry appears in the Suppressed SIGMET Entry Area, the SIGMETS View does not change until a SIGMET entry is suppressed.
    b. When a SIGMET entry with the HIDE SUPPRESS menu pick area active is suppressed, a gray line appears above the Unsuppressed SIGMET Entry Area and the suppressed entry does not appear in the Suppressed SIGMET Entry Area of the SIGMETS View.

10.3.5 Printing SIGMET Entries

The user can print a selected SIGMET entry, print more than one SIGMET entry, or print all the SIGMET entries eligible for display by using the following steps:

NOTE: Printing a SIGMET entry also acknowledges it.

Printing a Single SIGMET Entry

1. With the left or middle trackball button, select an entry in the Unsuppressed SIGMET Entry Area of the SIGMETS View. The entry is displayed in reverse video and two pop-up pick areas appear: SUPPRESS (the default pick area) and PRINT. The trackball cursor is automatically positioned on the default pick area.
2. With the left or middle trackball button, select an entry in the Suppressed SIGMET Entry Area of the SIGMETS View. The entry is displayed in reverse video and two pop-up pick areas appear:

RESTORE (the default pick area) and PRINT. The trackball cursor is automatically positioned on the default pick area.

3. With the left or middle trackball button, select the **PRINT** pop-up pick area. When a SIGMET entry is selected, it is given user selection emphasis. The selected SIGMET entry is printed. The pop-up and the user selection emphasis on the entry are deleted.

   If there was new entry coding (white underscore for the first field of the entry) on the selected entry, it is removed after the successful completion of this action.

Printing Multiple SIGMET Entries

1. With the left or middle trackball button, select the **PRINT** button in the SIGMETS View header. The PRINT pick area in the SIGMETS View header is activated. No pop-up pick areas are available when the PRINT header button is activated.
2. With the left trackball button, select more than one SIGMET entry and then with the middle trackball button select the final entry for printing.

   As each SIGMET entry is selected, it is given user emphasis. The selected SIGMET entries are printed and the user selection emphasis on all the selected entries remains for 2 seconds. The activation emphasis on the PRINT button is removed.

   If there was a new entry coding on selected entries (a white underscore for the initial segment of the entry), it is deleted when the last SIGMET entry is selected with the middle trackball button.
3. With the middle trackball button, select one SIGMET entry for printing. The selected SIGMET entry is given user selection emphasis. The selected SIGMET entry is printed, the user selection emphasis on the entry remains for 2 seconds, and the activation emphasis on the PRINT button is removed.

   If there was a new entry coding on the selected entry (white underscore for the initial segment of the entry), it is deleted after the successful completion of this action.

Printing All SIGMET Entries

1. With the left or middle trackball button, select the **M** pick area in the SIGMETS View header. The SIGMETS View Menu appears. The default trackball cursor location is on the VIEW SUPPRESS menu pick area.
2. With the left or middle trackball button, select the **PRINT ALL** pick area in the SIGMETS View Menu. All the SIGMET entries eligible for display are printed. If the Suppressed Entry Area is hidden, suppressed entries are not printed; if the Suppressed Entry Area is not hidden, suppressed entries are printed. Unsuppressed entries are always printed.
   a. The PRINT ALL menu pick area displays activation emphasis for 2 seconds after the successful completion of this action.
   b. If there was new entry coding (white underscore for the initial segment of the entry) for any or all selected entries, this is also removed after completion of this action.

10.3.6 Removing New Entry Coding

The user can remove the NEW ENTRY coding for individual entries in the SIGMETS View.

Toggling the Entry and Performing No Other Action

1. With the left or middle trackball button, select a SIGMET entry (not the entry's first field). The selected entry is displayed with user selection emphasis and the two pop-up pick areas appear: SUPPRESS (the default pick area) and PRINT.

   The trackball cursor is automatically positioned on the default pick area. Only SIGMET entries in the Unsuppressed SIGMET Entry Area have new entry coding because the action of suppressing an entry also removes the new entry coding.
2. Move the trackball cursor off the SUPPRESS pop-up pick area and, with the left or middle trackball button, select the SIGMET entry again (not the entry's first field).

   The user selection emphasis for the entry is removed and the pop-up pick areas and the entry's new entry coding are removed.

Selecting the New Entry Pick Area

The user can select the new entry pick area by using the left or middle trackball cursor, to select the first field in the entry. The new entry coding for that entry is removed.

Selecting the Entry and Performing a Pop-up Action

1. With the left or middle trackball button, select a SIGMET entry (not the entry's first field). The selected entry appears with the user selection and the two pop-up pick areas appear: SUPPRESS (the default pick area) and PRINT. The trackball cursor is automatically positioned on the default pick area.

   Only SIGMET entries in the Unsuppressed SIGMET Entry Area will have new entry coding because the action of suppressing an entry will also remove the new entry coding.
2. With the left or middle trackball button, select one of the two pop-up pick areas: SUPPRESS or PRINT. The user selection emphasis for the entry is removed and the pop-up pick areas and the entry's new entry coding are removed.

10.3.7 Restoring Suppressed SIGMET Entries

The user can restore an entry to the unsuppressed state in the SIGMETS View by using the following steps:

1. If the VIEW SUPPRESS pick area on the SIGMETS View Menu is not activated, activate it by using the left or middle trackball button to select the VIEW SUPPRESS menu pick area on the SIGMETS View Menu. All entries that were displayed as a result of the VIEW SUPPRESS pick area now appear in the Suppressed SIGMET Entry Area above the gray line.
2. With the left or middle trackball cursor, select a SIGMET entry in the Suppressed SIGMET Entry Area of the SIGMETS View. The entry is displayed in reverse video and two pop-up pick areas appear: RESTORE (the default pick area) or PRINT. The trackball cursor is automatically positioned on the default pop-up pick area.
3. With the left or middle trackball button, select the **RESTORE** pop-up pick area. The user selection emphasis and pop-up pick areas are deleted. The selected SIGMET entry is restored from the Suppressed SIGMET Entry Area to the Unsuppressed SIGMET Entry Area.

10.3.8 Suppressing a SIGMET Entry

The user can suppress individual SIGMET entries by using the following steps:

1. With the left or middle trackball button, select a SIGMET entry in the Unsuppressed SIGMET Entry Area. The entry is displayed in reverse video and two pop-up pick areas appear: SUPPRESS (the default pop-up pick area) and PRINT. The trackball cursor is automatically positioned on the default pick area.
2. With the left or middle trackball button, select a SIGMET entry in the Unsuppressed SIGMET Entry Area. The selected SIGMET entry is suppressed from the Unsuppressed SIGMET Entry Area and the pop-up is deleted.

   If the HIDE SUPPRESS view menu pick area appears as active, the suppressed entry does not appear. If the VIEW SUPPRESS view menu pick area is active, the suppressed entry is deleted from the Unsuppressed SIGMET Entry Area and appears again in the Suppressed SIGMET Entry Area.

10.3.9 Viewing Suppressed SIGMET Entries

The user can view suppressed entries by using the following steps:

1. With the left or middle trackball button, select the **M** pick area in the SIGMETS View header. The SIGMETS View Menu appears. The default trackball cursor location is on the VIEW SUPPRESS menu pick area.
2. With the left or middle trackball button, select the **VIEW SUPPRESS** pick area of the SIGMETS View Menu. If there is no SIGMET entry in the Suppressed SIGMET Entry Area, the SIGMETS View does not change until a SIGMET entry is suppressed.

   When a SIGMET entry with the VIEW SUPPRESS menu pick area active is suppressed, a gray line appears above the Unsuppressed SIGMET Entry Area and the suppressed SIGMET entry appears in the Suppressed SIGMET Entry Area of the SIGMETS View.
3. With the left or middle trackball button, select the **VIEW SUPPRESS** pick area of the SIGMETS View Menu. The VIEW SUPPRESS pick area appears as active and, if there is a suppressed SIGMET entry, it appears in the Suppressed SIGMET Entry Area. The HIDE SUPPRESS menu pick area is displayed as inactive.

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11. WEATHER STATION REPORT VIEW

This chapter describes characteristics of the Weather Station Report View. Major topics covered are:

- Layout and Characteristics
- Associated Menus
- User Commands

11.1 Layout and Characteristics

Figure 11–1, Weather Station Report View, provides the user with relevant weather station name(s), time of the weather station reading, and the weather station reported information. The view may be accessed through the RA-Position Weather (WX) toolbar button and is initially displayed at a default location. The view is also suppressed via the WX toolbar button.

When there is no data to populate the view, it consists of the view header only, which contains (from left to right) the :

- Menu (**M**) pick area
- title of the view
- minimize (**-**) view pick area

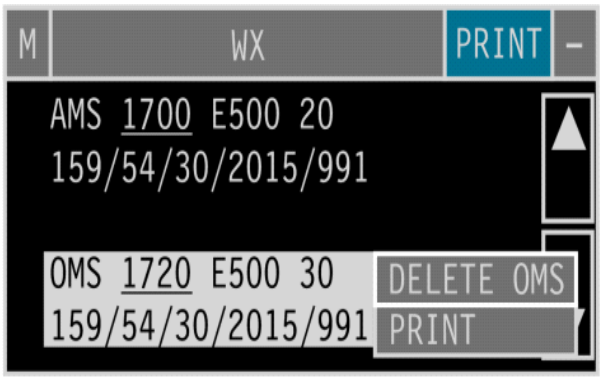

Figure 11–1. Weather Station Report View

Figure 11–1 shows a selected entry invoking a pop-up **DELETE OMS** pop-up menu. The Weather Station Report View entries are automatically updated whenever new weather data for the requested reported station(s) is received. The user can add or delete weather stations to the Weather Station Report View. A pop-up Delete menu is provided per entry to allow the user to delete an individual entry.

A scroll bar is located on the right hand side of the view, that allows the user to page up and down.

Major components of the Weather Station Report View are the Title bar and Main Display area. A description of each component is provided in the following subsections.

11.1.1 Title Bar

The Weather Station Report View Title Bar allows the user to move and reposition the view and is comprised of the:

- Menu (**M**) pick area
- view title
- minimize (**-**) view pick area

The Menu (**M**) pick area allows the user to access the Weather Station Report Messages View Menu to perform the associated Weather Station Report View functions. The Minimize View (**-**) pick area allows the user to suppress the Weather Station Report View.

11.1.2 Main Display Area

Weather Station Report messages are displayed in the Main Display area of the view. Weather report text word wraps within the view. Whenever a word cannot be displayed entirely on a single line, it will be displayed at the beginning of the next line. A word will be split on a character basis if a single word exceeds the length of a line and start directly under the first character of the weather station name in the next row of the entry. Spaces are the valid word delimiters. For each row, twenty-five characters will be displayed.

When a weather station ID is displayed in the Weather Station Report View and the weather data for the weather station ID has not been entered, the three characters –M– will be displayed in the reported weather data with the time field blank. The Weather Station Report View automatically expands and contracts vertically when an entry is added or deleted. As new entries are added, the view automatically expands until it reaches the number of lines specified by the user. The scroll bar is then displayed. When the last entry is removed from the view, the view header remains displayed.

A left or middle trackball button selection of an entry will display the DELETE pop-up menu. The DELETE pop-up menu will be displayed to the right of and adjacent to the selected entry. If the DELETE pop-up pick area cannot be displayed to the right of the entry then it will be displayed to the left. The trackball cursor will be placed automatically on the DELETE pop-up menu. The DELETE pop-up pick area contains the word DELETE followed by the weather station ID (2 to 5 characters).

A weather station ID, along with its associated data, will be removed from the Weather Station Report View when the user enters a weather request (WR) command for a weather station ID that is already in the Weather Station Report View. The view will be compacted so that there is no empty position. When a valid Weather Request command includes a weather station ID that is not already contained in the Weather Station Report View, that weather station ID, along with its associated data, will be added to the first position in the view.

11.2 Associated Menus

The following submenus can be accessed via the Weather Station Report View:

- WX View Menu
- WX Pop-up Input Box

A brief description of each menu is provided in the following subsections.

11.2.1 WX View Menu

Figure 11–2, WX Station Report View Menu, provides the capability to set the number of lines in the Weather Station Report View before scrolling is needed, the font size and the text brightness associated with the Weather Station Report View.

The Weather Station Report View Menu is accessed selecting the Menu (**M**) pick area in the far left corner of the Weather Station Report View title bar with the left or middle trackball button.

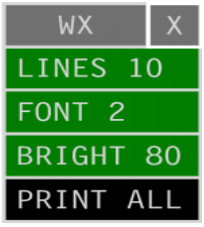

Figure 11–2. WX Station Report View Menu

Menu options for the WX Report Menu are:

a. **Close Menu (X)**: allows the user to close the Weather Station Report View Menu. Centered in a two character pick area.

b. **LINES**: allows the user to increment (middle trackball button) or decrement (left trackball button) the number of lines displayed in the view. This button is an auto repeat button such that if the user holds down the left or middle trackball button the value will continue to decrement or increment respectively until the button is released or until the value range limits, 3 and 21+, are reached. The range is 3 to 21+. The nominal value is 10. A scroll bar is displayed when there are more lines of data to be displayed than the number of lines specified in the LINES pick area. The trackball cursor will be attached to the LINES pick area such that if the location of the LINES pick area changes due to an increment/decrement action, the user can continue incrementing/decrementing without having to reposition the trackball cursor.

c. **FONT**: allows the user to increment (middle trackball button) or decrement (left trackball button) the view font size. The range is 1 to 3. The nominal value is 2. As font size gets bigger the view increases. As the font size gets smaller the view size decreases. The trackball cursor will be attached to the FONT pick area such that if the location of the FONT pick area changes due to an incrementing/decrementing action the user can continue incrementing/ decrementing without having to reposition the trackball cursor. The menu font size is not affected by the changes in font values.

d. **BRIGHT**: allows the user to increment (middle trackball button) or decrement (left trackball button) the brightness value to be used for the view text. This button is an auto repeat button such that if the user holds down the left or middle trackball button the value will continue to decrement or increment respectively until the button is released or until the value range limits, 0 and 100, are reached. The range is 0 – 100 in increments of 2. The nominal value is 80. The view header shading is a fixed color and not affected by the BRIGHT setting.

11.2.2 WX Pop-Up Input Box

A single weather reporting station can be added to or deleted from the Weather Station Report View via the WX Pop-up Input Box (Figure 11–3, WX Pop-Up Input Box). The entry of a typed station ID acts as a toggle. If the entered station ID does not exist in the list, it will be added to the list. If a station ID matching the entered station ID exists in the list, that station will be deleted from the list.

Figure 11–3. WX Pop-Up Input Box

When the Weather Station Report View Menu has been invoked, the Weather Station Report Pop-up Input Box is accessed and the view Menu is closed, when the user types a station ID.

An INVALID indicator error message is displayed below the text entry box when the weather station ID that was entered by the user contains error. The text entry box, with the INVALID indicator displayed, remains open to allow the user to edit the text within the text entry box.

11.3 User Commands

This section describes the following Weather Station Report View commands:

- Adding/Deleting Weather Station Report Entries
- Adjusting the Number of View Lines
- Adjusting the view Text Brightness
- Adjusting the View Font Size

CAUTION

Commands entered while a channel is in Pending mode are retained if the channel is promoted from Pending to Active mode. If a channel is promoted from Pending to Backup mode, these same commands are lost.

11.3.1 Adding/Deleting Weather Station Report Entries

The user may add a Weather Station Report entry if it is not in the list and the user may delete a Weather Station Report Entry if it is in the list by using the following steps:

Add/Delete Weather Station Report Entries (Text Entry)

1. With the left or middle trackball button, select the **M** pick area in the Weather Station Report View header. The Weather Station Report View Menu is displayed. The trackball cursor default location is on the X pick area.
2. With the Weather Station Report View Menu displayed, the user starts to type a weather station ID and press the **Enter** key. A Weather Station Report Pop-Up Input box is displayed, replacing the Weather Station Report View Menu, and the user entered keystrokes are echoed.

a. If a syntactically valid station ID is entered, the input box is closed. The entry of a typed station ID acts as a toggle.

b. If the entered station ID does not exist in the list, it will be added to the list.

c. If a station ID matching the entered station ID exists in the list, the entry associated with the station ID will be deleted from the list.

d. If the station ID that was entered is not syntactically valid, the input box remains displayed and an INVALID indicator is displayed below the input box. The user can take corrective action by editing the station ID and resubmitting the entry.

Add/Delete Weather Station Report Entries (Delete Pop-Up)

1. With the left or middle trackball button, select the Weather Station Report View text entry. The text is displayed with user selection emphasis and the DELETE pop-up pick area is displayed and the trackball cursor will automatically be placed on the DELETE pop-up pick area.
2. With the left or middle trackball button, select the **DELETE** pop-up pick area. The DELETE pop-up pick area is removed and the Weather Station Report View entry is removed from display.

11.3.2 Adjusting the Number of View Lines

Use the following steps to adjust the number of lines displayed on the Weather Station Report View:

1. With the left or middle trackball button, select the **M** pick area in the Weather Station Report View header. The Weather Station Report View Menu is displayed. The default trackball cursor location is on the X.
2. Position the trackball cursor on the view menu LINES pick area and press the left trackball button to decrement the LINES number or the middle trackball button to increment the LINES number.

11.3.3 Adjusting the Text Brightness

Use the following steps to adjust the text brightness of the Weather Station Report View:

1. With the left or middle trackball button, select the **M** pick area in the Weather Station Report View header. The Weather Station Report View Menu is displayed. The default trackball cursor location is on the X.
2. Position the trackball cursor on the view menu BRIGHT pick area and press the left trackball button to decrement the bright value and the middle trackball button to increment the bright value.
3. The bright value for the Weather Station Report View is incremented or decremented.
4. The trackball circle E cursor will be displayed (and a single error tone will sound) when the user presses the left trackball button and there is no valid decrement value. The trackball circle P cursor will be displayed (and a single error tone will sound) when the user selects the middle trackball button and there is no valid increment value. The right trackball button is never valid for this view. The trackball circle I cursor, for invalid, will be displayed (and a single error tone will sound) when the user selects the right trackball button.

11.3.4 Adjusting the View Font Size

Use the following steps to adjust the text brightness of the Weather Station Report View:

1. With the left or middle trackball button, select the **M** pick area in the Weather Station Report View header. The Weather Station Report View Menu is displayed. The default trackball cursor location is on the X.
2. Position the trackball cursor on the view menu COL pick area and press the left trackball button to decrement the font size or the middle trackball button to increment the font size. The font size for the Weather Station Report View is incremented or decremented.
    a. The trackball circle E cursor will be displayed (and a single error tone will sound) when the user presses the left trackball button and there is no valid decrement value.
    b. The trackball circle P cursor will be displayed (and a single error tone will sound) when the user selects the middle trackball button and there is no valid increment value.
    c. The right trackball button is never valid for this view.
    d. The trackball circle I cursor, for invalid, will be displayed (and a single error tone will sound) when the user selects the right trackball button.
    e. The trackball cursor will be attached to the FONT pick area such that if the location of the pick area changes due to an increment or decrement, the user can continue to increment/decrement without having to reposition the trackball cursor.

12. ALTIMETER SETTINGS VIEW

This chapter describes characteristics of the Altimeter Settings (AS) View. Major topics covered are:

- Layout and Characteristics
- Associated Menus
- User Commands

12.1 Layout and Characteristics

Figure 12–1, Altimeter Settings (AS) View, provides the user with relevant altimeter station name(s), time of altimeter reading, and the altimeter settings. The view is accessed through the RA-Position altimeter (**ALTIM**) toolbar button and is initially displayed at a default location. The view is also suppressed via the ALTM toolbar button. When there is no data to populate the view, it consists of the view header only, which contains (from left to right) the:

- Menu (**M**) pick area
- view title
- minimize (**-**) view pick area

Figure 12–1. Altimeter Settings (AS) View

Figure 12–1 shows a single column of altimeter station names with a selected entry invoking a pop-up DELETE NIP pop-up menu. The AS View entries are automatically updated whenever new weather data for the requested reported station(s) is received. The user can add or delete weather stations to the AS View. A pop-up Delete menu is provided per entry to allow the user to delete an individual entry. A scroll bar is located on the right hand side of the view, that allows the user to page up and down.

Major components of the AS View are the Title Bar and Main Display area. A description of each component is provided in the following subsections.

12.1.1 Title Bar

The AS View Title Bar allows the user to move and reposition the view and is comprised of the:

- Menu (**M**) pick area
- view title
- minimize (**-**) view pick area

The Menu (**M**) pick area allows the user to access the AS Messages View Menu to perform the associated AS View functions. The Minimize View (**-**) pick area allows the user to suppress the AS View.

12.1.2 Main Display Area

Altimeter Settings information is displayed in the Main Display area of the view. Major pick areas in the Main Display area are:

a. **ALTIM SET**: allows the user to move and reposition the view.

b. **DELETE**: allows the user to delete an entry. The pick area label is comprised of DELETE and the station ID associated with the entry, centered within a 13 character pick area.

When an altimeter station ID entry is displayed in the AS View and the altimeter reading for the altimeter station ID does not contain a valid numerical reading, (i.e., is missing), the three characters -**M**- in the altimeter reading field will be displayed with the time field blank or populated.

When the number of columns is set to 1, up to 24 lines can be filled in the AS View. When the number of columns is set to 2, up to 12 lines can be filled in the AS View. When the number of columns is set to 3, up to 8 lines can be filled in the AS View. When the number of columns is set to 4, up to 6 lines can be filled in the AS View.

The AS View automatically expands and contracts horizontally and vertically when an entry is added or deleted. As new entries are added, the view automatically expands until it reaches the number of lines specified by the user. Afterwards, scroll bars are displayed on the right hand side of the view. The scroll allows the user to page up and down. When the last entry is removed from the list, the view header remains displayed.

A left or middle trackball button selection of an entry will display the DELETE pop-up menu. The DELETE pop-up menu will be displayed to the right of and adjacent to the selected entry. If the DELETE pop-up menu cannot be displayed to the right of the entry then it will be displayed to the left. The trackball cursor will be placed automatically on the DELETE pop-up menu. The DELETE pop-up menu is the default selection and contains the word DELETE followed by the altimeter station ID (2 to 5 characters).

An altimeter station ID, along with its associated data, will be removed from the AS View when the user enters an altimeter request (AR) command for an altimeter station ID that is already in the AS View. The position in the view that was occupied by the altimeter station ID will remain empty. When a valid AR command includes an altimeter station ID that is not already contained in the AS View, that altimeter station ID, along with its associated data, will be added to the first blank position in the view. The system, in looking for the first blank space, will check the lines top to bottom and the columns left to right.

12.2 Associated Menus

The following submenus can be accessed via the AS View:

- AS View Menu
- AS Template

A brief description of each menu is provided in the following subsections.

12.2.1 AS View Menu

From Figure 12–2, AS View Menu, the user can set the number of lines in the AS View before scrolling is needed, the font size, and the text brightness associated with the AS View.

The AS View Menu is accessed selecting the Menu (**M**) pick area in the far left corner of the AS View Title Bar with the left or middle trackball button.

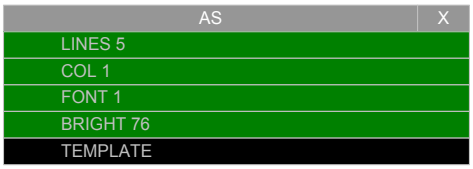

Figure 12–2. AS View Menu

Menu options for the AS View Menu are:

a. **Close Menu (X)**: allows the user to close the AS View Menu.

b. **LINES**: allows the user to increment (middle trackball button) or decrement (left trackball button) number of lines displayed in the view. This button is an auto repeat button such that, if the user holds down the left or middle trackball button, the value will continue to decrement or increment respectively until the button is released or until the value range limits, 3 and 24, are reached. The range is 3 to 24. The nominal value is 5. The trackball cursor will be attached to the LINES pick area so that if the location of the LINES pick area changes due to an increment/decrement action, the user can continue incrementing/decrementing without having to reposition the cursor.

c. **COL**: allows the user to increment (middle trackball button) or decrement (left trackball button) the number of columns to display. The range is 1 to 4. The nominal value is 2.

   The COL pick area setting, denoting the number of requested columns to display, also directly determines the number of lines that will be populated with entries in the view. For example, if the number of columns is set to 1, then up to 24 lines could be displayed. In this case, if the user set the LINES pick area to 17, the system would display scroll bars if there were a non-blank line after the 17th line. If the number of columns in the COL pick area were set to 2, then up to 12 lines of entries could be displayed. If the user, in this case, sets the number of lines to less than 12, the system would display scroll bars if there were a non-blank entry in a line beyond the number of lines specified. If the user in this case set the number of lines to more than 12, the system would never display scroll bars since with 2 columns there can only be 12 lines of entries per column. When the user increments or decrements the columns the system will automatically scroll the view to the top.

   NOTE: If there is an empty column(s) to the right of the last populated column, then the AS View will not show that column.

d. **FONT**: allows the user to increment (middle trackball button) or decrement (left trackball button) the view font size. The range is 1 to 3. The nominal value is 2. As the font size increases, the view size increases. As the font size gets smaller, the view size decreases. The trackball cursor will be attached to the FONT pick area such that if the location of the FONT pick area changes due to an increment/decrement action the user can continue incrementing/decrementing without having to reposition the cursor. The menu font size is not affected by changes to the font values.

e. **BRIGHT**: allows access to the AS Template to change the AS View layout, by adding, deleting, and arranging the altimeter station entries. Changes made and submitted via the AS Template are reflected in the AS View. The TEMPLATE view menu pick area will always have a black background (it is not a toggle). User command feedback is provided when the AS View Menu is removed and the AS Template is displayed.

f. **Template**: allows access to the AS Template to change the AS View layout, by adding, deleting, and arranging the altimeter station entries. Changes made and submitted via the AS Template are reflected in the AS View. The TEMPLATE view menu pick area will always have a black background (it is not a toggle). User command feedback is provided when the AS View Menu is removed and the AS Template is displayed.

12.2.2 AS Template

Figure 12–3, AS Template (INVALID Indicator), provides the user with a method to add, delete, replace, and move an altimeter station(s) in the Altimeter Settings View. With these capabilities, the user can then order altimeter stations to match their scanning preferences.

The AS Template may be accessed from the AS View Menu and replaces the AS View Menu. The AS Template header is placed to the right and adjacent to the view (space allowing, refer to the Special Layout Characteristics for display behavior when there is no space for the AS Template at the bottom to be adjacent or to the right of the AS Template). The user can add, replace, move, and delete altimeter station(s) names by typing the names into a five character text entry box.

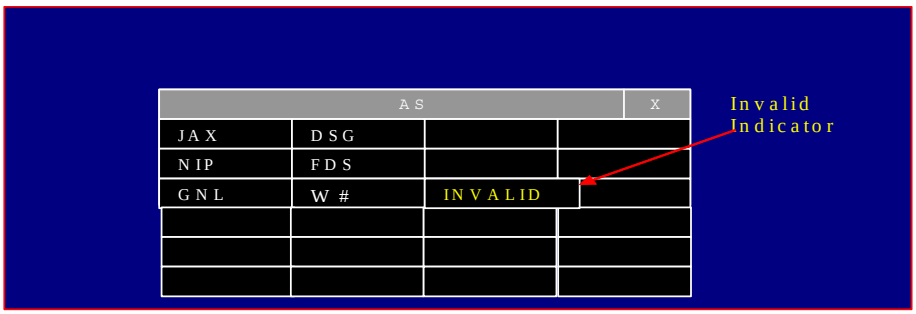

Figure 12–3. AS Template (INVALID Indicator)

There are two types of template input errors possible, an INVALID indicator message (Figure 12–3) and a NOT FOUND indicator message (Figure 12–4, AS Template (NOT FOUND Indicator)).

An INVALID indicator provides the user feedback following the attempted entry of an altimeter station. The display of an INVALID indicator message informs the user that the requested altimeter station entry contained a syntactic error. The text entry field remains open as the INVALID indication message is displayed to the right of the cell with the syntactic error or to the left if it cannot fit to the right.

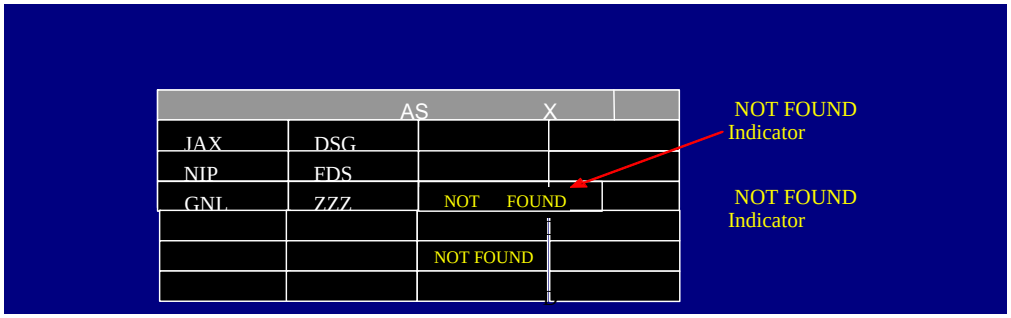

Figure 12–4. AS Template (NOT FOUND Indicator)

A NOT FOUND indicator message provides the user feedback following the attempted entry of an altimeter station. The display of a NOT FOUND indicator message informs the user that the requested altimeter station entry was not found in adaptation. The text entry field remains open as the NOT FOUND indication message is displayed to the right of the cell with the non-adapted station name or to the left if it cannot fit to the right.

The Positionless Entry Area (PEA) (Figure 12–5, AS View Positionless Entry Area) is not initially displayed when the TEMPLATE menu pick area is selected. When the user moves an entry in the AS Template to a populated cell, the moved value now populates the cell and the prior value is displayed in the PEA. The user can move altimeter station entries from the PEA to a cell in the AS Template. The user cannot directly move an altimeter station name into the PEA.

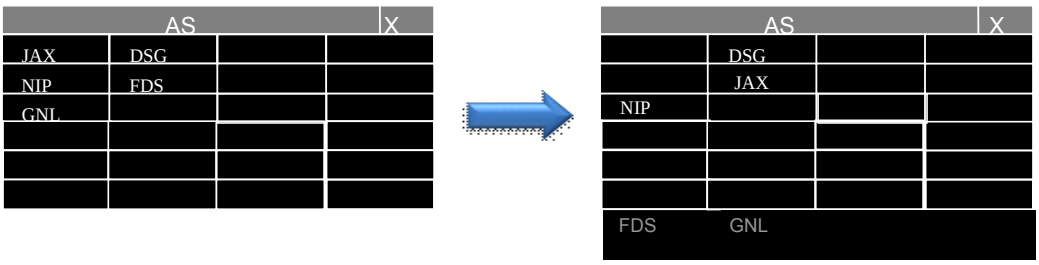

Figure 12–5. AS View Positionless Entry Area

In the example above the AS View displays the PEA. In this example, JAX was moved to the cell occupied by FDS and NIP was moved to the cell occupied by GNL. This resulted in JAX replacing FDS in the cell and FDS moving to the PEA and NIP replacing GNL in the cell and GNL moving to the PEA. Entries in the PEA are deleted when the AS Template is closed.

12.3 User Commands

This section describes the following Altimeter View Settings commands:

- Adding an Altimeter Settings Entry

- Adjusting the Font Size
- Adjusting the Number of Columns
- Adjusting the Number of Lines
- Adjusting the Text Brightness
- Deleting an Altimeter Settings View Entry
- Moving an Altimeter Settings Entry
- Replacing an Existing Altimeter Station Cell in the AS Template

CAUTION

Commands entered while a channel is in Pending mode are retained if the channel is promoted from Pending to Active mode. If a channel is promoted from Pending to Backup mode, these same commands are lost.

12.3.1 Adding an Altimeter Settings Entry

The user can add an Altimeter Station name that is not currently in the list by using the following steps:

1. With the left or middle trackball button, select the **M** pick area. The AS View Menu appears. The trackball cursor default location is on the TEMPLATE pick area.
2. With the left or middle trackball button, select the **TEMPLATE** Menu pick area. The AS Template appears and replaces the AS View Menu. The trackball cursor is in the first cell (intersection of first line and first column of the AS Template) but the cell is not selected. The cell is displayed with the trackball cursor selection emphasis.
3. With the left or middle trackball button, select the template cell to type in. The cell has user selection emphasis.
4. Type the Altimeter Station name. An editing session opens. The selection emphasis is removed and the typed characters are echoed in the template cell. The keyboard cursor indicates where the next character will appear.
5. Press the **Enter** key. The Altimeter Station name is submitted for system processing. There are three possible outcomes:
   a. The INVALID indicator message appears if command processing fails the syntactic check.
   b. The NOT FOUND indicator message appears if command processing passes the syntactic check but the station name is not found in adaptation.
   c. The Altimeter Station that was typed is successfully added to the AS Template and the cell's editing session is closed.

   NOTE: For a. and b., the cell's editing session remains open with the capability to re-enter an Altimeter Station name value and resubmit the command.

   NOTE: To close a cell's editing session and revert to the cell's original value:

   1). While a NOT FOUND indicator message is displayed, select another cell in the template.

2). While an INVALID indicator message is displayed, select another cell in the template.

3). Using the trackball, select another cell before pressing the **Enter** key.

4). Select the cell associated with the INVALID or NOT FOUND message.

5). Close the AS Template during an open cell editing session (the text will still be gray) by selecting the X close pick area, pressing the **CLEAR** key, or pressing a hard-labeled function key.

6. Close the template by using any of the close AS Template methods. The station IDs and the layout reflected in the AS Template are reflected in the AS View.

12.3.2 Adjusting the Font Size

The user can adjust the font size by using the following steps:

1. With the left or middle trackball button, select the **M** pick area in the AS View header. The AS View Menu appears. The trackball cursor default location is on the TEMPLATE pick area.
2. Position the trackball cursor on the view menu COL pick area and press the left trackball button to decrement the FONT size; press the middle trackball button to increment the FONT size. The font size for the AS View is incremented or decremented.
   a. When the left trackball button is pressed and there is no valid decrement value, the trackball E cursor appears and a single error tone sounds.
   b. When the middle trackball button is pressed and there is no valid increment value, the trackball P cursor appears and a single error tone sounds.
   c. The right trackball button is never valid for this view. When the right trackball button is pressed, the trackball I (invalid) cursor, appears and a single error tone sounds.
   d. The trackball cursor will be attached to the FONT pick area so that if the location of the pick area changes because of incrementing or decrementing, the user can continue this action without repositioning the trackball cursor.

12.3.3 Adjusting the Number of Columns

The user can adjust the number of columns by using the following steps:

1. With the left or middle trackball button, select the **M** pick area in the AS View header. The AS View Menu appears. The trackball cursor default location is on the TEMPLATE pick area.
2. Position the trackball cursor on the COL pick area and press the left trackball button to decrement the COL value or the middle trackball button to increment the COL value.
   a. The column value for the AS View is incremented or decremented.
   b. When the left trackball button is pressed and there is no valid decrement value, the trackball E cursor appears and a single error tone sounds.

c. When the middle trackball button is pressed and there is no valid increment value, the trackball P cursor appears and a single error tone sounds. The right trackball button is never valid for this view.

d. When the right trackball button is pressed, the trackball I (invalid) cursor appears and a single error tone sounds.

e. The trackball cursor will be attached to the COL pick area so that if the location of the pick area changes because of incrementing or decrementing, the user can continue to increment or decrement without repositioning the trackball cursor.

12.3.4 Adjusting the Number of Lines

The user can adjust the number of lines by using the following steps:

1. With the left or middle trackball button, select the **M** pick area in the AS View header. The AS View Menu appears. The trackball cursor default location is on the TEMPLATE pick area.
2. Position the trackball cursor on the view menu LINES pick area and press the left trackball button to decrement the LINES number or press the middle trackball button to increment the number of LINES.
   a. The number of lines for the AS View is incremented or decremented.
   b. When the left trackball button is pressed and there is no valid decrement value, the trackball E cursor appears and a single error tone sounds.
   c. When the middle trackball button is selected and there is no valid increment value, the trackball P cursor appears and a single error tone sounds. The right trackball button is never valid for this view.
   d. When the right trackball button is pressed, the trackball I (invalid) cursor appears and a single error tone sounds.
   e. The trackball cursor will be attached to the LINES pick area so that if the location of the pick area changes because of incrementing or decrementing, the user can continue to increment or decrement without repositioning the trackball cursor.

12.3.5 Adjusting the Text Brightness

The user can adjust the Text Brightness by using the following steps:

1. With the left or middle trackball button, select the **M** pick area in the AS View header. The AS View Menu appears. The trackball cursor default location is on the TEMPLATE pick area.
2. Position the trackball cursor on the BRIGHT pick area and press the left trackball button to decrement the BRIGHT value; press the middle trackball button to increment the BRIGHT value. The bright value for the AS View is incremented or decremented.
   a. When the left trackball button is pressed and there is no valid decrement value, the trackball E cursor appears and a single error tone sounds.
   b. When the middle trackball button is selected and there is no valid increment value, the trackball P cursor appears and a single error tone sounds. The right trackball button is never valid for this view.

c. When the right trackball button is selected, the trackball I (invalid) cursor appears and a single error tone sounds.

12.3.6 Deleting an AS View Entry

The user can delete an AS View Entry by using the following steps:

Using the DELETE Pop-Up

1. With the left or middle trackball button, select an entry in the AS View. The selected entry is displayed in reverse video and the DELETE pop-up pick area opens. If the DELETE pop-up pick area does not fit to the right, it appears on the left.
2. With the left or middle trackball button, select the **DELETE** pop-up pick area. The AS View Entry is deleted from the display.

Using the AS Template

Close the AS Template with an entry or entries in the Positionless Entry Area (PEA). The entries in the PEA are deleted from the AS View.

Replacing an Entry

1. With the left or middle trackball button, select the template cell to type in. The cell has user selection emphasis and is prepared to echo user-entered keystrokes.
2. Press an editing function key (for example backspace, delete character, or space bar) and the **Enter** key. The cell altimeter station name is deleted from the cell.
3. Close the AS Template. The AS Template is closed and the altimeter station name is deleted from the AS View.

12.3.7 Moving an AS Entry

The user can move an AS entry by using the following steps:

Move from an Existing AS Template to an Empty AS Template Using the Trackball

1. With the left or middle trackball button, select an entry's current cell location. The altimeter station name has user selection emphasis.
2. With the left or middle trackball button, select an empty destination cell's location. The altimeter station is moved from its current cell location to the destination cell's location.
3. Close the template. The AS Template is deleted from the display and the altimeter station is removed from its current location in the AS View and is displayed at the new location in the AS View.

Move from an Existing AS Template Location to an Empty AS Template Using the Keyboard

1. With the left of middle trackball button, select an empty AS Template cell. The empty cell has user selection emphasis.

2. Type an Altimeter Station Name that already exists in the template into an empty cell and press the **Enter** key. The altimeter station ID in the destination cell appears without user selection emphasis and the altimeter station ID in the previous cell is deleted.
3. Close the template. The AS Template is deleted from the display and the altimeter station is removed from its current location in the AS View and appears at the new location in the AS View.

Move from an Existing PEA Location to an Empty AS Template Cell Using the Trackball

1. Position the trackball cursor on the PEA entry. The Trackball cursor selection emphasis is applied to the entry and text appears in white.
2. With the left or middle trackball button, select an entry in the PEA. The altimeter station name has user selection emphasis.
3. With the left or middle trackball button, select the empty destination cell's location. The altimeter station is moved from its PEA location to the destination cell's location.
4. Close the template. The AS Template is deleted from the display and the altimeter station is displayed at the new location in the AS View.

Move from an Existing PEA Location to an Empty AS Template Cell Location Using keyboard

1. With the left or middle trackball button, select an empty AS Template cell. The empty cell has user selection emphasis.
2. Type the altimeter station that is present in the PEA into an empty cell and press the **Enter** key. The altimeter station is moved from its PEA location to the destination cell's location. If this was the only remaining entry, the PEA is deleted.
3. Close the template. The AS Template is deleted from the display and the altimeter station appears at the new location in the AS View.

Move from an Existing AS Template Location to a Populated AS Template Cell Location

1. With the left or middle trackball button, select the entry's current cell location. The altimeter station name has user selection emphasis.
2. With the left or middle trackball button, select a populated destination cell's location. The altimeter station moves from its current cell location to the destination cell's location and the altimeter station entry at the destination cell shifts to the PEA.
3. Close the template. The AS Template is deleted from the display and the altimeter station appears at the new location in the AS View and the entry in the PEA is deleted.

Move from an Existing PEA Location to a Populated AS Template Cell Location

1. Position the trackball cursor on the PEA entry. The trackball cursor selection emphasis is applied to the entry and text appears in white.
2. With the left or middle trackball button, select the entry's location in the PEA. The user selection emphasis is applied to the selected entry in the PEA.
3. With the left or middle trackball button, select the destination cell's location. The altimeter station is moved from its PEA location to the destination cell's location and the altimeter station entry at the destination cell shifts to the PEA.

4. Close the template. The AS Template is removed from the display and the altimeter station appears at the new location in the AS View and the entry in the PEA is deleted.

12.3.8 Replacing an Existing Altimeter Station Cell in the AS Template

The user can replace an existing altimeter station cell by using the following steps:

1. With the left or middle trackball button, select the populated AS Template cell. The cell is displayed in reverse video.
2. Start to type the altimeter station name that will replace the existing name. An editing session is opened. The selection emphasis is removed, the existing AS name is removed upon the keystroke press, and the typed characters are echoed in the cell.
3. Press the **Enter** key. The Altimeter Station name is submitted for system processing and there are three possible outcomes:
   a. An INVALID indicator message appears should command processing fail the syntactic check.
   b. A NOT FOUND indicator message appears should command processing pass the syntactic check but the station name is not found in adaptation.
   c. The altimeter station ID that was typed over is removed from the altimeter setting settings template, the altimeter station ID that was typed in is successfully added to the altimeter settings template and the cell's editing session is closed.

   NOTE: For the first two outcomes above, the cell's editing session remains open with the capability to re-enter an altimeter station name value and resubmit the command.

   NOTE: To close a cell's editing session and revert to the cell's original value:
      1). Select another cell in the template while a NOT FOUND indicator message is displayed.
      2). Select another cell in the template while an INVALID indicator message is displayed.
      3). Using the trackball, select another cell before pressing the **Enter** key.
      4). Select the cell associated with the INVALID or NOT FOUND message.
      5). Close the AS Template during an open (text is still gray) cell editing session by picking the X close pick area, pressing the **CLEAR** key, or pressing a hard-labeled function key.
4. Close the template. The station IDs and the layout reflected in the AS Template are reflected in the AS View.

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13. STATUS VIEW

This chapter describes characteristics of the Status View. Major topics covered are:

- Layout and Characteristics
- Associated Menus
- User Commands

13.1 Layout and Characteristics

Figure 13–1, Status View, displays the positions current channel ID (A vs. B), the channel mode (ACTIVE, BACKUP, PENDING, or TEST) information and the FLIGHT DATA DOWN message when the service is down. The mode of the current channel is reflected in the STATUS toolbar button.

The Status View is accessed through the RA-Position toolbar via the STATUS toolbar button and is initially displayed at a default location. The Status View can also be suppressed with the STATUS toolbar button. If a status changes when the Status View is not displayed the STATUS toolbar button will be emphasized. The Status View will automatically expand and contract as entries are added and removed from the view (for example, FLIGHT DATA DOWN will be removed from the Status View when the flight data services are returned).

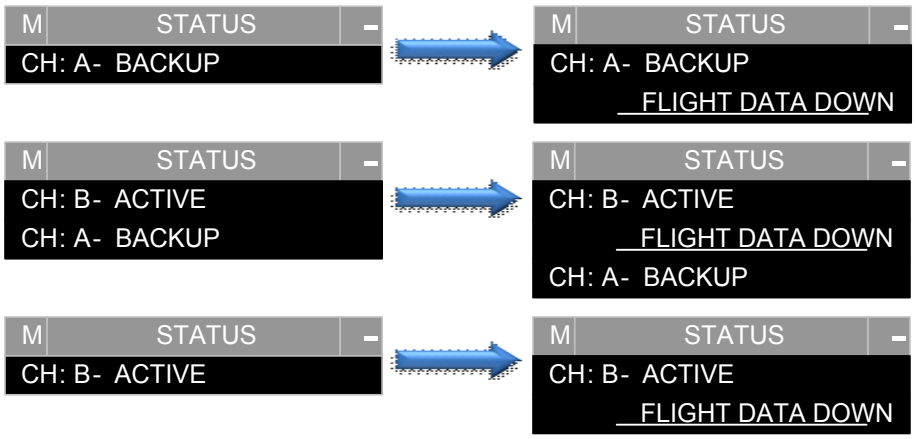

Figure 13–1. Status View

The capability to specify brightness of text data independently for this view is not supported. The text brightness for the Status View will be tied to the Message Composition Area (MCA) View Menu BRIGHT pick area.

13.1.1 Title Bar

The Status View Title Bar allows the user to move and reposition the view and is comprised of the:

- Menu (**M**) pick area

- view title
- minimize (**-**) view pick area

The Menu (**M**) pick area allows the user to access the Status View Menu to perform the associated Status View functions. The Minimize View (**-**) pick area allows the user to suppress the Status View.

13.1.2 Main Display Area

System Channel Status is displayed in the Main Display Area of the Status View. The first line of the Status View identifies the currently selected channel for the position, and the facility-wide status of that channel is shown as active, backup, pending, or test.

The next line will display “Flight Data Down” if the service is down on the selected channel. This is the only outage that will be displayed in the Status View.

The Status View also displays the status of the alternate channel (channel ID and channel mode information) when the alternate channel is in backup mode. If the alternate channel is not in backup mode, no alternate channel status information is displayed and the user has to switch to the alternate channel to determine its mode. The mode of the alternate channel is not reflected in the STATUS toolbar button with the mode of the current channel.

NOTE: The RA-position channel is selected independently from the R-Position channel. For example, the R-Position could have Channel A selected while the RA position has Channel B selected. The status of the position’s selected channel is also displayed on the Status button in the Toolbar. If the status is pending or test, a banner will appear below the toolbar.

The current channel ID and channel mode information is always retained and placed in the first row of the Status View. A FLIGHT DATA DOWN outage is displayed under only the current channel. Flight data UP status is not reflected in the Status View in that the lack of a displayed DOWN status implies an UP status.

If the alternate channel is in backup mode, the alternate channel information (channel id and channel mode) is displayed in:

- the second row of the Status View when there is no FLIGHT DATA DOWN outage
- the fourth row if there is a FLIGHT DATA DOWN outage

If the alternate channel is not in backup mode, only the current channel data is shown and no alternate channel data is shown. If the current channel is in backup mode, only the current channel information is displayed in the first row of the Status View.

If the Status View is displayed and the current channel mode information changes, then the Status View entry is updated and coded as unacknowledged for a preset period of time (15 seconds). Changes to the channel ID and channel mode information in the Status View caused solely by punching into the other channel are not coded as unacknowledged.

If the Status View is displayed and the alternate channel indicator entry is added to the view, the alternate channel indicator is coded as unacknowledged for a preset period of time (15 seconds). Suppressing the Status View does not result in acknowledgement of any entry. If the Status View is displayed and

the FLIGHT DATA DOWN message is added to the view then the message is coded as unacknowledged until it is acknowledged in the Outage View.

The Status View is not displayed if an entry is updated, deleted (alternate channel indicator entry), or added while the view is closed. When the Status View is displayed, the unacknowledged (underscored) entry condition for the updated entry or for the entry that was added is displayed for a preset period of time (15 seconds).

There is no special emphasis applied in the Status View itself when FLIGHT DATA DOWN message or the alternate channel indicator entry is removed. The alternate channel mode is removed when the alternate channel mode is no longer indicated as backup. The STATUS button in the toolbar is emphasized when the alternate channel indicator is removed and the Status View is not displayed. The STATUS button in the toolbar is not emphasized when the FLIGHT DATA DOWN message is removed since this data is not unique to the Status View and a FLIGHT DATA UP message is displayed in the Outage View.

13.1.3 Possible RA-Position Outages

The following comprises the list of possible RA-Position outages:

- ADS-B DOWN/UP
  - — ADS-B SV DOWN
  - — ADS-B SV UP
  - — RS UAT zzzz aaaaaaaaaaaaaaaaaaa OTS
  - — RS 1090 zzzz aaaaaaaaaaaaaaaaaaa OTS
  - — RS UAT zzzz aaaaaaaaaaaaaaaaaaa RTS
  - — RS 1090 zzzz aaaaaaaaaaaaaaaaaaa RTS

  (where zzzz is the name of the local identifier which can be up to 4 alphanumeric characters, and aaaaaaaaaaaaaaaaaaa is the name of the radio station identifier which can be up to 20 alphanumeric characters)
- AIRSPACE DOWN/UP
  - — AIRSPACE SAA DOWN
  - — AIRSPACE RESTRICTIONS DOWN
  - — AIRPORT STREAM FILTER DOWN
  - — AIRSPACE SAA UP
  - — AIRSPACE RESTRICTIONS UP
  - — AIRPORT STREAM FILTER UP
- CONFLICT PROBE DOWN/UP
  - — CONFLICT PROBE DOWN
  - — TRIAL PLANNING DOWN
  - — CONFLICT PROBE UP

  - TRIAL PLANNING UP
- DISPLAY APPLICATION FAILURE
  - X (display red [243, 0 , 0] one pixel thick across the display from corner to corner)
- Display Settings Synchronization
  - SETTINGS NOT IN SYNC
  - SETTINGS IN SYNC
- En Route Weather Data Processing (EWDP) Communications DOWN/UP
  - UPPER WINDS DOWN
  - WX STATION REPORTS DOWN
  - ALTIMETER SETTINGS DOWN
  - SIGMETS DOWN
  - UPPER WINDS UP
  - WX STATION REPORTS UP
  - ALTIMETER SETTINGS UP
  - SIGMETS UP
- FLIGHT DATA DOWN/UP
  - FLIGHT DATA DOWN
  - FLIGHT DATA STANDBY
  - FLIGHT MODELING DOWN
  - CONFLICT PROBE DOWN
  - TRIAL PLANNING DOWN
  - FLIGHT DATA UP
  - FLIGHT MODELING UP
  - CONFLICT PROBE UP
  - TRIAL PLANNING UP
- FLIGHT MODELING DOWN/UP
  - FLIGHT MODELING DOWN
  - FLIGHT MODELING UP
- General Information (GI) MESSAGES DOWN/UP
  - GI MESSAGES DOWN
  - GI MESSAGES UP
- MONITOR FLIGHTS (MONF) DOWN/UP
  - FLIGHT DATA DOWN
  - FLIGHT DATA UP

- Neighbors DOWN/UP (specific neighbor designations are facility adapted)
  - Zxx DOWN
  - Zxx UP
- Notice to Airmen (NOTAMS) DOWN/UP
  - NOTAMS DOWN
  - NOTAMS UP
- Rapid Update Cycle (RUC) DOWN/UP
  - UPPER WINDS DOWN
  - UPPER WINDS UP
- Synchronization Processor Status
  - FSP PRINTING DOWN
  - FSP PRINTING UP
- TRIAL PLANNING DOWN/UP
  - TRIAL PLANNING DOWN
  - TRIAL PLANNING UP
- Weather Message Switching Center Replacement (WMSCR) DOWN/UP
  - ALTIMETER SETTINGS DOWN
  - WX STATION REPORTS DOWN
  - SIGMETS DOWN
  - ALTIMETER SETTINGS UP
  - WX STATION REPORTS UP
  - SIGMETS UP

13.2 Associated Menus

There is one submenu that is accessed via the Status View; the Status View Menu. A description of this menu is provided in the following subsection.

13.2.1 Status View Menu

Figure 13–2, Status View Menu, provides the user with the capability to set the font size in the Status View. The Status View Menu may be accessed through the Status View by selecting the **M** pick area in the view header with the left or middle trackball button.

Figure 13–2. Status View Menu

Menu options for the Status View Menu are:

a. **Close Menu (X)**: allows the user to close the Status View Menu. This is the default pick area.

b. **LINES**: allows the user to increment (middle trackball button) or decrement (left trackball button) the Status View font size. The range is 1 to 3. The nominal value is 2. As the font size gets bigger the view size increases. As the font size gets smaller, the view size decreases. The trackball cursor will be attached to the FONT pick area such that if the location of the FONT pick area changes due to an increment or decrement action, the user can continue incrementing or decrementing without having to reposition the trackball cursor. The menu font size is not affected by the changes in font values.

13.3 User Commands

This section describes the Status View commands:

- Acknowledging a Status View Entry
- Adjusting the Status View Font Size

CAUTION

Commands entered while a channel is in Pending mode are retained if the channel is promoted from Pending to Active mode. If a channel is promoted from Pending to Backup mode, these same commands are lost.

13.3.1 Acknowledging a Status View Entry

Use the following steps to acknowledge a Status View Entry:

1. The controller, with the left or middle trackball button, selects the **STATUS** toolbar button. The Status View is displayed at an adapted location or at the last displayed location.
2. If the controller takes no action for a pre-set period of time (15 seconds), then the entry is automatically acknowledged.

13.3.2 Adjusting the Font Size of the Status View

Use the following steps to adjust the font size of the Status View:

1. The controller, with the left or middle trackball button, selects the **M** pick area in the Status View header. The Status View Menu is displayed. The default trackball cursor location is on the close X menu pick area.
2. The controller positions the trackball cursor on the FONT pick area and selects the left trackball button to decrement the FONT size or the middle trackball button to increment the FONT size. The font size for the Status View is incremented or decremented.
    a. The trackball circle E cursor will be displayed (and a single error tone will sound for a preset time) when the controller the left trackball button and there is no valid decrement value.
    b. The trackball circle P cursor will be displayed (and a single error tone will sound for a preset time) when the controller selects the middle trackball button and there is no valid increment value. The right trackball button is never valid for this view.

c. The trackball I (invalid), cursor will be displayed (and a single error tone will sound for a preset time) when the controller selects the right trackball button.

d. The trackball cursor will be attached to the FONT pick area so that if the location of the pick area changes because of an increment or decrement controller action, the controller can continue to increment/decrement without having to reposition the trackball cursor.

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14. OUTAGE VIEW

This chapter describes characteristics of the Outage View. Major topics covered are:

- Layout and Characteristics
- Associated Menus
- User Commands

14.1 Layout and Characteristics

Figure 14–1, Outage View, displays the positions current outages. The Outage View is accessed through the RA-Position toolbar via the OUTAGE toolbar button and is initially displayed at a default location. The Outage View can also be suppressed with the OUTAGE toolbar button. If an outage occurs when the Outage View is not displayed the OUTAGE toolbar button will be emphasized.

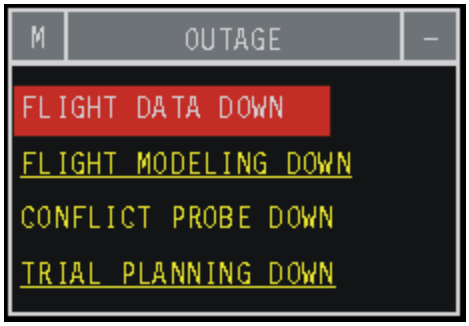

Figure 14–1. Outage View

The Outage View will automatically expand and contract as entries are added and removed from the view. The Outage View, without data to populate it, cannot be displayed. The capability to specify brightness of text data independently for this view is not supported. The text brightness for the Outage View is tied to the Message Composition Area (MCA) View Menu BRIGHT pick area.

14.1.1 Title Bar

The Outage View Title Bar allows the user to move and reposition the view and is comprised of the:

- Menu (**M**) pick area
- view title
- minimize (**-**) view pick area

The Menu (**M**) pick area allows the user to access the Outage View Menu (refer to Section 14.2.1, Outage View Menu) to perform the associated Outage View functions. The Minimize View (**-**) pick area allows the user to suppress the Outage View.

14.1.2 Menu Bar

The Outage View does not contain a menu bar.

14.1.3 Main Display Area

Current outages are displayed in the Main Display area of the Outage View. Figure 14–1 shows the Outage View with a Flight Data outage and the associated unacknowledged (underlined) entries associated with such a failure. In the case of the Flight Data outage, the outage is also reflected in the Status View. However, outages can only be acknowledged through the Outage View. If there is a new outage or an update to a current outage, the Outage View entry will be placed in the first row of the Outage View.

The Outage View is not displayed if an entry is added or the status of an existing entry is changed while the view is closed. When multiple outage entries are added to the Outage View, they are displayed, in the order received, at the top of the Outage View. Unacknowledged entries will be color coded and underlined when the Outage View is displayed. If an outage state is DOWN, or OFF or SETTINGS NOT IN SYNC then the text indicators remain in the view following user acknowledgement. If an outage state is UP, or ON or SETTINGS IN SYNC, the text indicators are removed from the view following user acknowledgement. When the last entry is removed from the Outage View, the view is removed from the display and the Outage button text in the toolbar identifier is coded gray.

The following are possible outages that can be displayed in the Outage View:

- ADS-B DOWN/UP
  - — ADS-B SV DOWN
  - — ADS-B SV UP
  - — RS UAT zzzz aaaaaaaaaaaaaaaaaaa OTS
  - — RS 1090 zzzz aaaaaaaaaaaaaaaaaaa OTS
  - — RS UAT zzzz aaaaaaaaaaaaaaaaaaa RTS
  - — RS 1090 zzzz aaaaaaaaaaaaaaaaaaa RTS

  (where zzzz is the name of the local identifier which can be up to 4 alphanumeric characters, and aaaaaaaaaaaaaaaaaaa is the name of the radio station identifier which can be up to 20 alphanumeric characters.)

  NOTE: The display of a service volume outage and individual radio station outages are mutually exclusive in the Outage List; either a service volume outage may be displayed or individual radio station outages may be displayed, but not both simultaneously. It is a possibility to see a service volume up message simultaneously with individual radio station outage messages because radio station outages may occur after the service volume came up. If any radio station in the volume is down, only the radio station(s) outage(s) are displayed. If the service volume itself is down, only the service volume outage is displayed; the individual radio stations are not displayed.

- AIRSPACE DOWN/UP
  - — AIRSPACE SAA DOWN
  - — AIRSPACE RESTRICTIONS DOWN

  - AIRPORT STREAM FILTER DOWN
  - AIRSPACE SAA UP
  - AIRSPACE RESTRICTIONS UP
  - AIRPORT STREAM FILTER UP
- CONFLICT PROBE DOWN/UP
  - CONFLICT PROBE DOWN
  - TRIAL PLANNING DOWN
  - CONFLICT PROBE UP
  - TRIAL PLANNING UP
- DISPLAY APPLICATION FAILURE
  - X (display red [243, 0 , 0] one pixel thick across the display from corner to corner)
- Display Settings Synchronization
  - SETTINGS NOT IN SYNC
  - SETTINGS IN SYNC
- En Route Weather Data Processing (EWDP) Communications DOWN/UP
  - UPPER WINDS DOWN
  - WX STATION REPORTS DOWN
  - ALTIMETER SETTINGS DOWN
  - SIGMETS DOWN
  - UPPER WINDS UP
  - WX STATION REPORTS UP
  - ALTIMETER SETTINGS UP
  - SIGMETS UP
- FLIGHT DATA DOWN/UP
  - FLIGHT DATA DOWN
  - FLIGHT DATA STANDBY
  - FLIGHT MODELING DOWN
  - CONFLICT PROBE DOWN
  - TRIAL PLANNING DOWN
  - FLIGHT DATA UP
  - FLIGHT MODELING UP
  - CONFLICT PROBE UP
  - TRIAL PLANNING UP
- FLIGHT MODELING DOWN/UP

  - FLIGHT MODELING DOWN
  - FLIGHT MODELING UP
- General Information (GI) MESSAGES DOWN/UP
  - GI MESSAGES DOWN
  - GI MESSAGES UP
- MONITOR FLIGHTS (MONF) DOWN/UP
  - FLIGHT DATA DOWN
  - FLIGHT DATA UP
- Neighbors DOWN/UP (specific neighbor designations are facility adapted)
  - Zxx DOWN
  - Zxx UP
- Notice to Airmen (NOTAMS) DOWN/UP
  - NOTAMS DOWN
  - NOTAMS UP
- Rapid Update Cycle (RUC) DOWN/UP
  - UPPER WINDS DOWN
  - UPPER WINDS UP
- Synchronization Processor Status
  - FSP PRINTING DOWN
  - FSP PRINTING UP
- TRIAL PLANNING DOWN/UP
  - TRIAL PLANNING DOWN
  - TRIAL PLANNING UP
- Weather Message Switching Center Replacement (WMSCR) DOWN/UP
  - ALTIMETER SETTINGS DOWN
  - WX STATION REPORTS DOWN
  - SIGMETS DOWN
  - ALTIMETER SETTINGS UP
  - WX STATION REPORTS UP
  - SIGMETS UP

14.2 Associated Menus

There is one submenu that is accessed via the Outage View; the Outage View Menu. A description of this menu is provided in the following subsection.

14.2.1 Outage View Menu

Figure 14–2, Outage View Menu, provides the user with the capability to set the font size in the Outage View. The Outage View Menu may be accessed through the Status View by selecting the **M** pick area in the view header with the left or middle trackball button.

Figure 14–2. Outage View Menu

Menu options for the Outage View Menu are:

a. **Close Menu (X)**: allows the user to close the Status View Menu. This is the default pick area.

b. **FONT**: allows the user to increment (middle trackball button) or decrement (left trackball button) the view font size. The range is **1** to **3**. The nominal value is **2**. As the font size gets bigger, the view size increases. As the font size gets smaller, the view size decreases. The trackball cursor will be attached to the FONT pick area such that if the location of the FONT pick area changes due to an increment or decrement action the user can continue incrementing or decrementing without having to reposition the trackball cursor. The menu font size is not affected by the changes in font values.

14.3 User Commands

This section covers procedures for performing the following Outage View commands:

- Acknowledging an Outage View Entry
- Displaying/Suppressing the Outage View
- Adjusting the Font Size of the Outage View

CAUTION

Commands entered while a channel is in Pending mode are retained if the channel is promoted from Pending to Active mode. If a channel is promoted from Pending to Backup mode, these same commands are lost.

14.3.1 Acknowledging an Outage View Entry

Use the following steps to acknowledge an Outage View Entry:

1. Use the left or middle trackball button to select the **OUTAGE** toolbar button. The Outage View is displayed at an adapted location or at the last displayed location.
2. Use the left or middle trackball button to select the unacknowledged entry in the Outage View. With the Outage View displayed, the entry is acknowledged and if the entry is in the DOWN or OFF or SETTINGS NOT IN SYNC state, then the entry remains in the view. If the entry is in the UP or ON or SETTINGS IN SYNC state, then the entry is removed from the view.

14.3.2 Displaying/Suppressing the Outage View

Use the following steps to display or suppress the Outage View:

1. Use the left or middle trackball button to select the **OUTAGE** toolbar button. The Outage View is displayed at an adapted location or at the last displayed location.
2. Use the left or middle trackball button to select the **OUTAGE** toolbar button. The Outage View is suppressed. Suppressing the Outage View does not result in the acknowledgement of any entry.

14.3.3 Adjusting the Font Size of the Outage View

Use the following steps to adjust the font size of the Outage View:

1. Use the left or middle trackball button to select the **M** pick area in the Outage View header. The Outage View Menu is displayed. The default trackball cursor location is on the close X menu pick area.
2. Position the trackball cursor on the FONT pick area and select the left trackball button to decrement the FONT size or the middle trackball button to increment the FONT size. The font size for the Outage View is incremented or decremented.
    a. The trackball circle E cursor is displayed (and a single error tone will sound for a preset time) when the user selects the left trackball button and there is no valid decrement value.
    b. The trackball circle P cursor is displayed (and a single error tone will sound for a preset time) when the user selects the middle trackball button and there is no valid increment value.
    c. The right trackball button is never valid for this view.
    d. The trackball circle I cursor, for invalid, is displayed (and a single error tone will sound for a preset time) when the user selects the right trackball button.
    e. The trackball cursor is attached to the FONT pick area such that if the location of the pick area changes due to an increment or decrement user action the user can continue to increment/decrement without having to reposition the trackball cursor.

15. FLIGHT EVENT LIST VIEW

This chapter describes characteristics of the Flight Event List (FEL) View. Major topics covered are:

- Layout and Characteristics
- Associated Menus
- User Commands

15.1 Layout and Characteristics

Figure 15–1, FEL View, provides the user with notification of a 24-Bit mismatch and the capability to amend the 24-Bit address. It also provides the user with notification of a call sign (Aircraft ID) mismatch and the capability to amend the call sign. For a 24-Bit MISMATCH entry, the Computer Identification (CID) is displayed first followed by the Aircraft Identification (ACID). For a CALLSIGN MISMATCH entry, the CID is displayed first followed by the first and second ACID involved in the duplicate condition, and ending with the Automated Dependant Surveillance-Broadcast (ADSB) label. If no FEL view entry is selected the color coding for an entry is white text on black background. When the user selects anywhere in the FEL entry, the color coding for the entry changes to black text on white background.

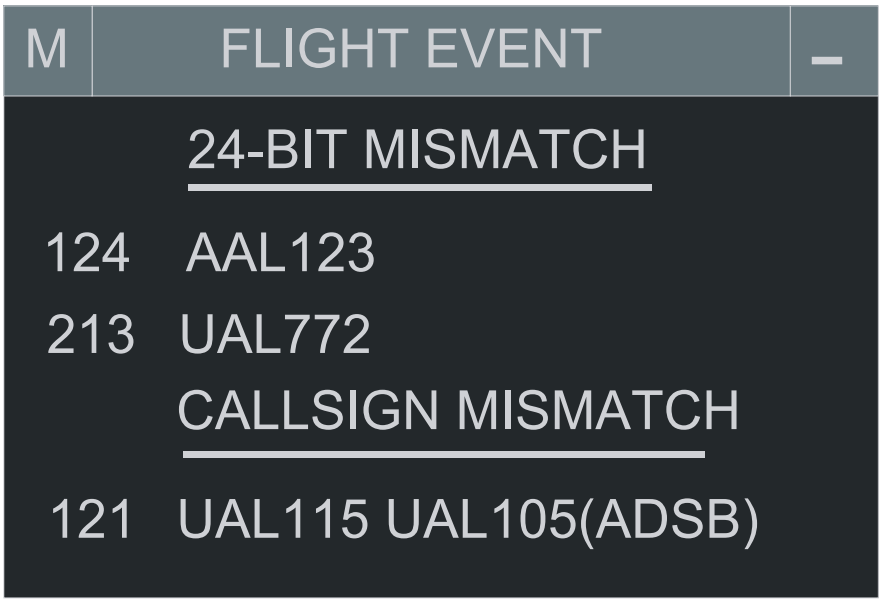

Figure 15–1. Flight Event List (FEL) View

The FEL view may be displayed even if it contains no entries. When displayed, the view automatically expands and contracts as entries are added and removed. When the number of lines to be displayed in the view exceeds the number specified in the LINES pick area (Refer to Section 15.2.2) of the associated FEL View Menu, a scroll bar is displayed for paging the view. The FEL view is forced at the RA-Position (or raised if already displayed) when there is a callsign mismatch in combination with a 24-Bit mismatch and the flight is either offered a handoff to the sector position or the sector position is the controlling sector position. The FEL view is not forced for a callsign mismatch alone. The user can suppress the view at

any time when it contains entries and the view is automatically suppressed when the last entry is removed from the view.

In addition to the FEL view's title bar header, the 24-Bit Mismatch sublist header and the Callsign Mismatch sublist header are always centered within the available view width. Entries are added to each of the sublists based on the time they are received with the most recent entry at the top of a given sublist. When the last entry in a sublist is removed, the sublist header will be removed from display. When a flight has a 24-Bit mismatch, an entry for the flight is automatically added to the list at the controlling sector or at the sector being offered the handoff. The entry is removed from the list when the controller amends the 24-Bit address to eliminate the mismatch. Upon transfer of control, the entry will persist in the list for the previously controlled flight for as long as an Aircraft List (ACL) entry is displayed for the flight or until the controller amends the flight plan 24-Bit code to match the sent 24-Bit code. If the user adds the ACL entry back at the previously controlling sector, the FEL entry is not re-displayed. When a flight has a callsign mismatch, an entry for the flight is automatically added to the list at the controlling sector or at the sector being offered the handoff. The entry is removed from the list when the controller amends the call sign to eliminate the mismatch. Upon transfer of control, the entry will persist in the list for the previously controlled flight for as long as an Aircraft List (ACL) entry is displayed for the flight or until the condition no longer exists. The controller can amend the call sign to eliminate the mismatch or the pilot may correct the condition. If the user adds the entry back at the previously controlling sector, the FEL view entry is not re-displayed.

The sublists of the FEL view are displayed in priority order with the 24-Bit mismatch sublist at the top, if present, followed by the callsign mismatch if present. Lower priority sublists are displayed at the top of the view if there is no higher-priority sublist. When a new entry is posted for a previously empty sublist, the sublist header will be displayed. When an entry in the list is updated, underline coding is applied to the updated data for a preset period of time, which is defaulted to 15 seconds, with a range of 0 to 30 seconds. Additional detail on sublist entries is provided in Section 15.1.3.

15.1.1 Title Bar

The FEL View Title Bar allows the user to move and reposition the view and is comprised of the following pick areas:

- Menu (M)
- View header
- Minimize (**-**)

The Menu (M) pick area allows the user to access the FEL View Menu (refer to Section 14.2.1, FEL View Menu) to perform the associated FEL View functions. The FLIGHT EVENT (view header) pick area allows the user to move and reposition the view. The Minimize View (**-**) pick area allows the user to suppress the FEL View.

15.1.2 Menu Bar

The FEL View does not contain a menu bar.

15.1.3 Main Display Area

Figure 15–2, FEL View with Pop-up Pick Areas, shows the FEL View with the 24-Bit and Callsign Mismatch Pop-up pick areas displayed. The pop-up pick areas are displayed adjacent and to the right of the selected FEL view entry. If the pop-up pick areas cannot be displayed to the right of the entry, they will be displayed adjacent and to the left of the selected entry. If there is not enough space at the bottom of the display to display the pop-up pick areas, it will be vertically adjusted upwards. When appropriate, a pop-up to amend a FEL entry will be paired with a pop-up to delete the entry. If both are valid for a given entry, the amend (AM) pop-up is displayed above the delete (DELETE) pop-up and the cursor defaults to the delete pop-up pick area.

NOTE: The selected entry is deleted from the FEL view when the user selects the DELETE pop-up pick area, for a Callsign or 24-Bit mismatch, and the pick area is removed.

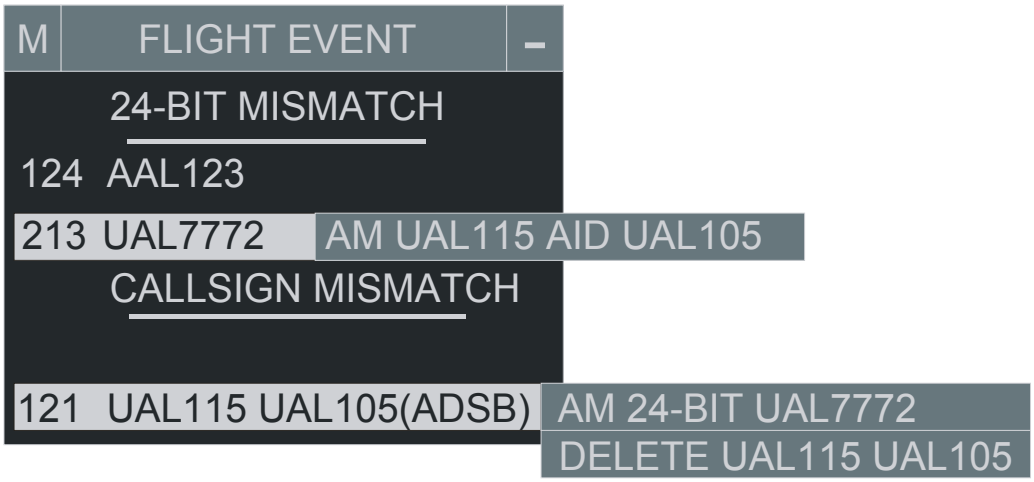

Figure 15–2. FEL View with Pop-up Pick Areas

If a flight is not eligible to be amended and a 24-Bit address mismatch or a Callsign mismatch entry is not eligible to be deleted, a **circle X** cursor is displayed upon selection of the entry. If a flight is controlled by the local sector, 24-Bit and Callsign pop-up pick area(s) are removed and the entry is removed from the FEL View upon successful execution of the Amendment command. If there are no other entries in the sublist, the sublist header is also removed. If there are no other entries in the FEL View, the view is removed.

15.2 Associated Menus

There are two submenus that are accessed via the FEL view; the Eligibility Menu and the FEL View Menu. A description of each menu is provided in the following subsections.

15.2.1 Eligibility Menu

The FEL Eligibility Menus, Figure 15–3, FEL Eligibility Menus, provide the user with a method for overriding and sending an amendment or a Hold message for an aircraft that is not under sector control. The Eligibility menu for amending a 24-Bit address is shown on the left of Figure 15–3. The Eligibility menu for

amending a Callsign (Aircraft ID) is shown on the right of Figure 15–3. If a flight is eligible to be amended but is not controlled by the local sector, the Eligibility menu is displayed. The Eligibility menu is not accessed directly by the user, but is displayed automatically when the user does not control the selected aircraft.

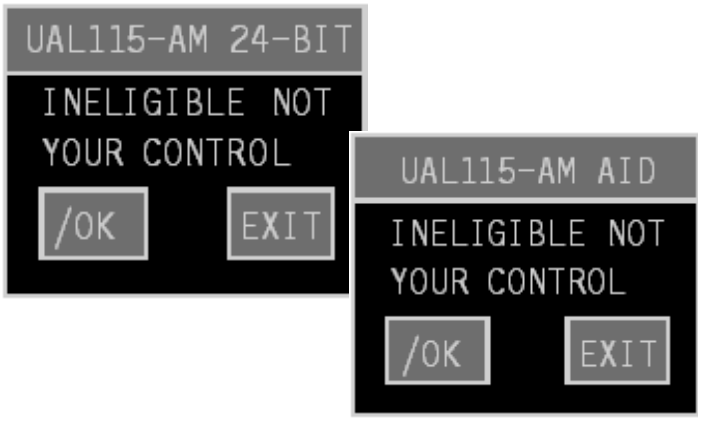

Figure 15–3. FEL Eligibility Menus

Two selection options are provided on the Eligibility menus; /OK and EXIT. The white box around a selected option is emphasized when the trackball cursor rests over the selection. Selecting the **/OK** executes the amendment command results and closes the Eligibility menu. Selecting the **EXIT** option cancels the amendment message and closes the Eligibility menu.

15.2.2 FEL View Menu

The FEL View Menu, Figure 15–4, FEL View Menu, provides the capability to:

- set the number of lines in the FEL View before scrolling is needed
- set the FEL View font size
- set the FEL View text brightness

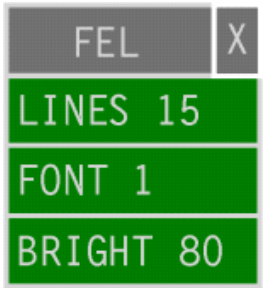

Figure 15–4. FEL View Menu

The FEL View Menu is accessed by selecting the **M** pick area in the FEL View header using either the left or middle trackball button. When the FEL View Menu is displayed, the default trackball cursor location is on the LINES pick area. Table 15–1 lists the pick areas contained in the FEL View Menu and the function for each.

Table 15–1. FEL View Menu Function Mapping

Pick Area	Function
X	Allows the user to close the FEL View Menu.
LINES	When selected, allows the user to increment or decrement the number of lines displayed in the view. The left trackball button is used to decrement the line number and the middle trackball button is used to increment the line number. The LINES pick area auto-repeats such that if the user holds down the left or middle trackball button, the value will continue to decrement or increment respectively until the pick area is released or until the value range limits (3 and 21+) are reached. The setting of 21+ means that the list will keep growing to accommodate the number of entries. A scroll bar is displayed when there are more lines of data to be displayed than the number of lines specified in the LINES pick area, or if 21+ is selected and the view expands to fill the entire vertical dimension of the physical display. **NOTE:** The trackball cursor will be attached to the LINES pick area such that if the location of the LINES pick area changes due to an increment/decrement action, the user can continue incrementing/decrementing without having to reposition the trackball cursor.

Table 15–1. FEL View Menu Function Mapping (Continued)

Pick Area	Function
FONT	When selected allows the user to increment or decrement the view font size (including the view header font size). The left trackball button is used to to decrement the font size and the middle trackball button is used to increment the font size. As the font size gets bigger, the view size increases. As the font size gets smaller, the view size decreases. **NOTE:** The trackball cursor will be attached to the FONT pick area such that if the location of the FONT pick area changes due to an increment/ decrement action the user can continue incrementing/decrementing without having to reposition the trackball cursor.
BRIGHT	Allows the user to increment or decrement the brightness value to be used for the view text (including the view header text). The left trackball button is used to decrement the text brightness and the middle trackball button is used to increment the text brightness. **NOTE:** The view header background shading is a fixed color and is not affected by the BRIGHT setting.

15.3 User Commands

This section covers procedures for performing the following FEL View commands:

- Amending a 24-Bit address Mismatch
- Amending a Callsign (Aircraft ID) Mismatch

CAUTION

Commands entered while a channel is in Pending mode are retained if the channel is promoted from Pending to Active mode. If a channel is promoted from Pending to Backup mode, these same commands are lost.

15.3.1 Amending a 24-Bit Address Mismatch

Use the following steps to amend a 24-Bit address for individual entries in the FEL View:

1. Using the left or middle trackball button, select a **FEL View entry** for a 24-Bit mismatch. Resulting output:
   - The selected entry is displayed with user selection emphasis
   - The Amend pop-up pick area is displayed if the flight is eligible to be amended.
   - The Delete pop-up pick area is displayed if the list entry for the flight is eligible to be deleted.
2. Using the left or middle trackball button, select the pick area to a Amend 24-Bit mismatch (e.g. **AM 24-Bit UAL7772**). If the flight is eligible to be amended but is not controlled by the local sector, and is controlled by the local facility, then the Eligibility menu is displayed.
3. The user selects the **/OK** button on the Eligibility menu. Resulting output:
   - The Amendment command is executed and the Eligibility Menu is removed.
   - The pop-up pick areas on the FEL view is removed.
   - The FEL View entry is removed. If there are no other entries in the FEL View, then the view is removed.

15.3.2 Amending a Callsign Mismatch

Use the following steps to amend a Callsign mismatch (Aircraft ID) for individual entries in the FEL View:

1. Using the left or middle trackball button, select a **FEL View entry** for a Callsign (AID) mismatch. Resulting output:
   - The selected entry is displayed with user selection emphasis
   - The Amend pop-up pick area is displayed if the flight is eligible to be amended.
   - The Delete pop-up pick area is displayed if the list entry for the flight is eligible to be deleted.
2. Using the left or middle trackball button, select the pick area to Amend a Callsign mismatch (e.g. **AM UAL115 AID UAL105**). If the flight is eligible to be amended but is not controlled by the local sector, then the Eligibility menu is displayed.
3. If the flight is currently in handoff status, then the user selects the **/OK** button on the Eligibility menu. Resulting output:
   - The Amendment command is executed and the Eligibility Menu is removed.
   - The pop-up pick areas on the FEL view is removed.
   - The FEL View entry is removed. If there are no other entries in the FEL View, then the view is removed.

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16. KEYBOARD SHORTCUTS

The commands described in this Chapter allow access to various functions without the use of the track-ball. The following commands are covered:

- Displaying/Raising the Aircraft List (ACL)
- Add/Find entry on ACL or Departure List (DL)
- Applying/Removing angulation highlighting
- Displaying/Raising the Departure List (DL)
- Displaying/Raising the Graphic Plan Display (GPD)
- GPD Show All/Removing show All
- Displaying/raising the Wind Grid Display Changing ACL posting modes
- Changing the sort criteria for ACL Entries
- Scrolling the ACL or DL
- Exiting menus and templates
- Resetting display locations and sizes
- Removing ACL entries coded for deletion

16.1 Displaying/Raising the Aircraft List

The following keyboard method may be used to raise the Aircraft List (ACL) to the top of the stack of currently displayed windows. If the ACL is minimized when this command is entered, then the ACL is displayed in its previously displayed size and location, unless the previous size was maximized. If the previous size was maximized, then the ACL is displayed in the size and location that was in use prior to the maximized size.

1. Type **UU** on the keyboard and press the **Enter** key. The characters UU are echoed in the MCA View.
2. Type **A** followed by a space. The character A and a space are echoed in the MCA View. If the ACL is not currently displayed, is displayed. If there is another display on top of the ACL when the command is entered, the ACL is displayed on top of the stack of currently displayed windows.

16.2 Adding/Finding an Entry on the ACL or DL

The following keyboard method may be used to display and apply selection emphasis to the specified entry. If necessary, the list (the Aircraft List or Departure List) that contains the entry is displayed/raised and scrolled to the location of the entry in the list. If the list is minimized when this command is entered, the list is displayed in its previously displayed size and location, unless the previous size was maximized.

If the previous size was maximized, then the list is displayed in the size and location that was in use prior to the maximized size.

1. Type **UU** on the keyboard, followed by a space. The characters UU and a space are echoed in the MCA View.
2. Type **CID**, **ACID**, or **Beacon Code** of the flight that is to be added or found and press the **Enter** key. The typed characters are echoed in the MCA View.
    a. If the specified entry is contained in the ACL, then the ACL is displayed on top of the stack of currently displayed windows and the ACL is scrolled as needed to display the entry in reverse video.
    b. If the specified entry is not currently contained in the ACL, but the entry information is available to be added, then the ACL is displayed on top of the stack, and the ACL is scrolled if needed to display the entry with selection emphasis.
    c. If the specified entry is contained in the DL, then the DL is displayed on top of the stack of currently displayed windows and the DL is scrolled as needed to display the entry with selection emphasis.
    d. If the specified entry is not currently contained in the DL, but the entry information is available to be added, then the DL is displayed on top of the stack, and the DL is scrolled if needed to display the entry with selection emphasis.
    e. When the posting mode is set to automatic and the user adds an entry to the ACL (or DL), the entry is displayed in the Normal Posting Area in sorted order with selection emphasis and without the N coding.
    f. When the posting mode is set to manual and the user adds an entry to the ACL (or DL), the entry is displayed in the Manual Posting Area with N coding and selection emphasis.
    g. If the specified entry is not found in the active or proposed flight database, an error message is displayed in the Response Display.

16.3 Applying/Removing Angulation Highlighting

The following keyboard method may be used to apply or remove angulation coding (background shading) to an entry. When an entry is angulated, it remains displayed for an adapted period of time (e.g., one hour), or until the flight departs, or the user deletes the entry or removes the angulation.

1. Type **UU** on the keyboard, followed by a space. The characters UU and a space are echoed in the MCA View.
2. Type **H** followed by a space. The character H and a space are echoed in the MCA View.
3. Type **CID**, **ACID**, or **beacon code** and press the **Enter** key. The typed characters are echoed in the MCA View. If the entry does not already have background shading, then background shading is applied to the specified entry. If background shading has already been applied to the entry, then background shading is removed from the specified entry.

16.4 Displaying/Raising the Departure List

The following keyboard method may be used to raise the Departure List (DL) to the top of the stack of currently displayed windows. If the DL is minimized when this command is entered, then the DL is displayed in its previously displayed size and location, unless the previous size was maximized. If the previous size was maximized, then the DL is displayed in the size and location that was in use prior to the maximized size.

1. Type **UU** on the keyboard, followed by a space. The characters UU and a space are echoed in the MCA View.
2. Type **D** on the keyboard and press the **Enter** key. The character D is echoed in the MCA View. If the DL is not currently displayed, is minimized, or if there is another display on top of the DL when the command is entered, then the DL is displayed on top of the stack of currently displayed windows.

16.5 Displaying/Raising the Graphic Plan Display

The following keyboard method may be used to raise the Graphic Plan Display (GPD) to the top of the stack of currently displayed windows. If the GPD is minimized when this command is entered, the GPD is displayed in its previously displayed size and location, unless the previous size was maximized. If the previous size was maximized, the GPD is displayed in the size and location that was in use prior to the maximized size.

1. Type **UU** on the keyboard, followed by a space. The characters UU and a space are echoed in the MCA View.
2. Type **G** on the keyboard and press the **Enter** key. The character G is echoed in the MCA View. If the GPD is not currently displayed, is minimized, or if there is another display on top of the GPD when the command is entered, then the GPD is displayed on top of the stack of currently displayed windows.

16.6 GPD Show All /Removing Show All

The following keyboard method may be used to graphically display or remove the display of a Flight Plan for a selected aircraft on the Graphic Plan Display (GPD). The display of a plan consists of its route, and any associated alerts assigned to the sector, and any alerts not assigned to the sector.

1. Type **UU** on the keyboard, followed by a space. The characters UU and a space are echoed in the MCA View.
2. Type **A** followed by a space. The character A and a space are echoed in the MCA View.
3. Type **CID**, **ACID**, or **beacon code** and press the **Enter** key. The typed characters are echoed in the MCA View.
4. The GPD is raised to the top of the stack of displays. If Show All had not been already applied to the selection, then the plan for the selection is shown on the GPD. The displayed route includes all alerts assigned to the sector and all alerts not assigned to the sector for the aircraft. The aircraft data block and route is displayed in the highest alert color. If Show All already had been applied to the selection, then the plan for the selection is removed from the Graphic Plan Display.

16.7 Displaying/Raising the Wind Grid Display

The following keyboard method may be used to raise the Wind Grid Display (WG) to the top of the stack of currently displayed windows. If the WG is minimized when this command is entered, then the WG is displayed in its previously displayed size and location, unless the previous size was maximized. If the previous size was maximized, the WG is displayed in the size and location that was in use prior to the maximized size. If the WG was not previously displayed, it is displayed in its default size and location.

1. Type **UU** on the keyboard, followed by a space. The characters UU and a space are echoed in the MCA View.
2. Type **W** on the keyboard and press the **Enter** key. The character W is echoed in the MCA View. If the WG is not currently displayed, is minimized, or if there is another display on top of the WG when the command is entered, then the WG is displayed on top of the stack of currently displayed windows showing wind data.

3. To display the Wind Grid Display for a specified altitude, the user types **UU** on the keyboard, followed by a space. The characters UU and a space are echoed in the MCA View.
4. Type **W** followed by a space. The character W and a space are echoed in the MCA View.
5. Type three digits indicating the parameter altitude. The typed values are echoed in the MCA View.
6. Press the **Enter** key.
    a. If the WG is not currently displayed, is minimized, or if there is another display on top of the WG when the command is entered, then the WG is displayed on top of the stack of currently displayed windows. If the WG is already displayed at the top of the stack when the command is entered, then the size and location of the display are not changed.
    b. Winds are displayed for the parameter altitude. If the text value entered does not correspond to one of the altitude value buttons, rounding will occur. For values below the halfway point between two altitude button values, the entered value will be rounded down to the next lower altitude button value. For values at or above the halfway point between two altitude button values, the entered value will be rounded up to the next higher altitude button value. Values of 591 to 999 are rounded to 590.
    c. The altitude field in the menu bar displays the current altitude on the lower left side (e.g., Alt: 29,000 Ft.).

16.8 Changing ACL Posting Modes

The following keyboard method may be used to change the Posting Mode for the Aircraft List. If the command is entered and the ACL is not currently displayed on top of the display stack, then the ACL is displayed on top. The command allows users to select where aircraft are posted and the order by which they are posted. When the user selects the Automatic Posting Mode, aircraft are posted in the Normal Posting Area with automatic sort criteria applied. When the user selects the Manual Posting Mode, aircraft are posted in the manual posting area on the basis of the time they entered the Aircraft List. The command toggles the posting mode between automatic and manual as described here.

There is a posting mode indicator in the title bar of the Aircraft List. The posting mode indicator shows the current mode.

1. Type **UU** on the keyboard, followed by a space. The characters UU and a space are echoed in the MCA View.
2. Type **P**. The character P is echoed in the MCA View.
3. Press the **Enter** key.
    a. If the ACL is not currently displayed, is minimized, or if there is another display on top of the ACL when the command is entered, then the ACL is displayed on top of the stack of currently displayed windows. If the current posting mode is automatic, then the posting mode is changed to manual. The posting mode indicator in the header of the list changes to Manual.
    b. All new ACL entries are placed in the Manual Posting Area in the order in which they are received. Upon expiration of an adapted period of time, the manual posting mode reverts to automated posting mode and all entries in the Manual Posting Area are placed in the Normal Posting Area and sorted based on the current sort criteria. These entries retain the new entry N coding.
    c. If the current posting mode is manual, then the posting mode is changed to automatic. The posting mode indicator in the header of the list changes to Automatic. All new ACL entries are placed in the Normal Posting Area sorted based on the current sort criteria. The new entry coding N is retained. All subsequent entries are placed in the Normal Posting Area sorted based on the current sort criteria with the new entry N coding in the bookkeeping box.

16.9 Changing the Sort Criteria for ACL Entries

The following keyboard method may be used to change the sort criteria for Aircraft List entries. Aircraft that are sorted by conflict time or conflict status and have multiple alerts are sorted by the time of the closest alert assigned to the sector.

1. Type **UU** on the keyboard, followed by a space. The characters UU and a space are echoed in the MCA View.
2. The user types any one of the following sort criteria character(s) and press the **Enter** key. Typed characters are echoed in the MCA View:
    - O
    - OB
    - OT
    - OC
    - OS
    - OA
    - OD
    - OSB
    - OST
    - OSC
    - OSA

- OSD

If the ACL is not currently displayed, is minimized, or if there is another display on top of the ACL when the ACL sort command is entered, the ACL is displayed on top of the stack of currently displayed windows.

NOTE: Unless **S** is explicitly typed, sector/non-sector is assumed to be disabled.

a. If **O** is typed, the sort criterion is changed to the default sort order, which is boundary time (predicted time at sector boundary).

b. If **OB** is typed, the sort criterion is changed to Boundary Time (predicted time at sector boundary).

c. If **OT** is typed, the sort criterion is changed to Conflict Time.

d. If **OC** is typed, the sort criterion is changed to Conflict Status.

e. If **OS** is typed, the primary sort criterion is changed to Sector/non-sector and the secondary sort criterion is changed to boundary time.

f. If **OA** is typed , the sort criterion is changed to ACID.

g. If **OD** is typed, the sort criterion is changed to Destination.

h. If **OSB** is typed, the primary sort criterion is changed to Sector/non-sector and the secondary sort criterion is changed to Boundary Time (predicted time at sector boundary).

i. If **OST** is typed, the primary criterion is changed to Sector/non-sector and the secondary sort criterion is changed to Conflict Time.

j. If **OSC** is typed, the primary sort criterion is changed to Sector/non-sector and the secondary sort criterion is changed to Conflict Status.

k. If **OSA** is typed , the primary sort criterion is changed to Sector/non-sector and the secondary sort criterion is changed to ACID.

l. If **OSD** is typed, the primary sort criterion is changed to Sector/non-sector and the secondary sort criterion is changed to Destination.

The specified sort option(s) is (are) displayed in the title bar of the ACL.

16.10 Scrolling the ACL or DL

The following keyboard method may be used to scroll to the top or the bottom of the Aircraft List or the Departure List.

1. Scrolling to the top of the ACL or DL results in the display of the first entry in the list and all subsequent entries that will fit in the available display space.
2. Scrolling to the bottom of the ACL or DL results in the display of the last entry in the list and all previous entries that will fit in the available display space.
   a. Type **UU** on the keyboard, followed by a space. The characters UU and a space are echoed in the MCA View.
   b. Optionally, a **D** is typed followed by a space to indicate that the command is to be applied to the Departure List. The D and a space are echoed in the MCA View.

c. Type **<up arrow>** or **<down arrow>**. The typed character is echoed in the MCA View.

d. Press the **Enter** key.

1). If D (Departure List) is not specified and the ACL is not currently displayed, is minimized, or there is another display on top of the ACL when the command is entered, the ACL is displayed on top of the stack of currently displayed windows.

2). If the DL is specified, and the DL is not currently displayed, is minimized, or if there is another display on top of the DL when the command is entered, the DL is displayed on top of the stack of currently displayed windows.

3). If the command is entered with <up arrow> character, the ACL (or DL, if specified) is scrolled so that the top entry in the list is shown as the first entry.

4). If the command is entered with <down arrow> character, the ACL (or DL, if specified) is scrolled so that the bottom entry in the list is shown as the last entry.

16.11 Exiting Menus and Templates

The following keyboard method may be used to exit/close all displayed or minimized menus and templates.

1. Type **UU** on the keyboard, followed by a space. The characters UU and a space are echoed in the MCA View.
2. Type **X**. The typed character is echoed in the MCA View.
3. Press the **Enter** key. All currently displayed and minimized menus and templates are closed.

16.12 Resetting Display Locations and Sizes

The following keyboard method may be used to reset the locations and sizes of the Aircraft List, Departure List, Graphic Plan Display, Plans Display, and the Response Display.

1. Type **UU** on the keyboard, followed by a space. The characters UU and a space are echoed in the MCA View.
2. Type **R**. The typed character is echoed in the MCA View.
3. Press the **Enter** key.
   a. The Aircraft List, Departure List, Graphic Plan Display, Plans Display, and the Response Displays are reset to their default sizes and locations.
   b. If the display is minimized, maximized, or closed, the next time the display is invoked or restored it will be displayed in its default size and location.

16.13 Removing ACL Entries Coded for Deletion

The following keyboard method may be used to remove Aircraft List entries that are coded for deletion.

1. Type **UU** on the keyboard, followed by a space. The characters UU and a space are echoed in the MCA View.
2. Type **C**. The typed character is echoed in the MCA View.
3. Press the **Enter** key.
    a. If the ACL is not currently displayed, is minimized, or if there is another display on tip of the ACL, the ACL is displayed on top of the stack of currently displayed windows.
    b. All grayed-out entries are removed from the Aircraft List, even those that are not currently displayed.

Appendix A. Viewing Electronic Technical Manuals

A.1 Viewing Technical Manuals on the ESSP or MISMCP

If PDF files of the ERAM Technical Manuals (TMs) have been loaded on the ESSP and MISMCP, they can be viewed using the following procedure.

NOTE: PDF TM files can include ERAM Technical Manuals, Security Manuals, COTS Manuals, and CAS documents.

1. Log on to a SupWS.

   NOTE: For detailed procedures, refer to Log In Procedures in Section 2.4.3 of the *En Route Automation Modernization (ERAM) System Administration and Security Manual (SASM)*.

2. Using SSH Tectia Client, bring up a connection to the ESSP01 or MISMCP01 with a valid maintainer account user ID and password.

   NOTE: For detailed procedures, refer to Access Using Existing Maintainer Account in Section 2.5.2.1 of the *En Route Automation Modernization (ERAM) System Administration and Security Manual (SASM)*.

3. If viewing a *System Administration and Security Manual* or other security-sensitive document, from a user ID in the “Wheel” group, switch user to Root as follows, otherwise skip this step:

   a. Type:

      su – root <Enter>

   b. When prompted, type:

      ***<root password>* <Enter>**

4. Type:

   export DISPLAY=<IP address>:0 <Enter>

   where <IP address> is the IP address of the SupWS being used. If the IP address is unknown, it can be determined as follows:

   a. Select **Start→Run** on the windows desktop.

   b. Type **cmd** in the Open: field of the displayed **Run** dialog box, then click on the **OK** button.

   c. In the displayed cmd.exe window, type:

      ipconfig <Enter>

   d. Note the IP Address listed as part of the Local Area Network information.

   e. Close the cmd.exe window.

5. To find the complete path name for the file to be viewed, use the following steps:
   a. Type:

      cd /technical_manuals/<*ti_issue*> <Enter>

      where <*ti_issue*> is the name of the sub-directory for the desired version of the TMs (e.g., EAA121V0, EAB100A, etc.).

   b. To list the manuals in the sub-directory of the desired version, type:

      ls <Enter>

      Note the title of the sub-directory that contains the TM to be viewed (e.g., ti_manuals).

   c. Type:

      cd <sub-directory title> <Enter>

      where <sub-directory title> is the title of the sub-directory noted in the previous step.

   d. To list the groups of manuals or documents within the sub-directory, type:

      ls <Enter>

      Note the title of the TM group that contains the TM to be viewed (e.g., 100_109_air_traffic_manual).

      NOTE: Some of the TM group names appear to be incomplete because the titles cannot exceed 30 characters, including underscores.

   e. Type:

      cd <group title> <Enter>

      where <group title> is the title of the TM group noted in the previous step. Note the title of the .pdf file for the technical manual or document to be viewed. Once the .pdf files are listed, the entire path can be defined.

6. Type:

   /usr/lpp/Acrobat5/bin/acroread <tm_pathname> <Enter>

   where <*tm_pathname*> is the complete path to the .pdf file for the manual to be viewed (e.g., /technical_manuals/EAB000W0/ti_manuals/100_109_air_traffic_manual/era_ti_6110_106_eab000w0.pdf).

   If presented with the ADOBE SYSTEMS INCORPORATED End User License Agreement, click on the **Accept** button and proceed.

When finished viewing the TM, perform the following steps:

1. Select **File→Exit** from the taskbar at the top of the viewer display.
2. Click the cursor inside the SSH Tectia Client window.
3. Type:

exit <Enter>

NOTE: If viewing a security-sensitive document, type **exit <Enter>** a second time.

4. Close the SSH Tectia Client window.
5. Log off the SupWS.

A.2 Viewing Technical Manuals on the Maintenance Laptop

If PDF files of the ERAM Technical Manuals (TMs) have been loaded on the Maintenance Laptop (MaintLT), they can be viewed using the following procedure.

The manuals stored in the **/technical_manuals** folder on the Windows Desktop of the MaintLT are to be viewed manually. To view them:

1. Navigate throughout the **/technical_manuals/<*ti_issue*>** folder until the document to be viewed has been located
   (i.e. /technical_manuals/<*ti_issue*>/100_109_air_traffic_manual/era_ti_6110_100_eab000V5.pdf).
2. Left double–click on the pdf file.
3. An Adobe Acrobat window will open displaying the document.

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List of Acronyms and Abbreviations

A	
A	Airspace
A	Assistant
AAR	Adapted Arrival Report
AAR	Adapted Arrival Route
AAR	Application Activity Report
AATI	ARTS Active Transfer Interval
AAV	Aircraft Alert Volume
ABM	Atomic Broadcast Manager
AC	Aircraft
ACARS	Aircraft Communications Addressing and Reporting System
A+CC	Authentication and Critical Confirmation
Achar/ACHR	Aircraft Characteristic
ACID	Aircraft Identification
ACL	Access Control List
ACL	Aircraft List
ACP	Azimuth Change Pulses
ACR	Aircraft Conflict Report
ADAR	Adapted Departure/Arrival Route
ADC	Active Directory Domain Controller
ADCCP	Advanced Data Communication Control Procedures
ADE	Application Detection Error
ADF	Automatic Direction Finding
ADP	Automated Problem Detection
ADR	Adapted Departure Route
ADS-B	Automatic Dependent Surveillance-Broadcast
AER	Application Error Report
AERO	Aeronautics CSCI
AF	Airway Facilities

AFI	Abbreviated Flights Interface
AFILC	AFI from the ARTCC channel to the ZLC NAP Subsystem
AFITL	AFI from the ARTCC channel to the ZTL NAP Subsystem
AFMP	Arrival Flow Management Point
AFN	Air Traffic Services (ATS) Facilities Notification
A/G	Air/Ground
AGL	Above Ground Level
AID	Aircraft Identifier
AIM	Aeronautical Information Management
AIT	Automatic Information Transfer
AIX	Advanced Interactive Executing Operating System
ALOR	All Others
ALT	Alternate
ALT	Altitude
ALTIM SET	Altimeter Setting
ALT LIM	Altitude Limits
AM	Amendment
ANP	Asynchronous Notification Processing
AOC	Aeronautical Operational Control
AOI	Area of Interest
AOR	Area of Responsibility
APC	Aprobe Source Files
APD	Automated Problem Detection
APDIA	Automated Problem Detection Inhibited Area
API	Application Programming Interface
APL	Application
APL	Aprobe List Files
APPL	Application
APR	Aircraft Performance Report
APR	ATC Preferred Route
APRL	ATN Profile Requirements List
APS	A-position Support
APX	Aprobe Executable Files

ARINC	ARINC, Inc. (formerly Aeronautical Radio, Inc.)
ARSR	Air Route Surveillance Radar
ARTCC	Air Route Traffic Control Center
ARTS	Automated Radar Terminal System
AS	Address Space
AS	Altimeter Setting
AS	Applications System
ASCII	American Standard Code for Information Interchange
ASF	Airport Stream Filter
ASM	Advanced System Management
ASOSE	Address Space Operating System Extension
ASSM	ARTCC System Support Manual
AT	Air Traffic
ATC	Air Traffic Control
ATC	Air Traffic Controller
ATCBI	Air Traffic Control Beacon Interrogator
ATCS	Air Traffic Control Specialist
ATCS	Air Traffic Control System
ATM	Air Traffic Management
ATM	Air Traffic Manual
ATMA	Air Traffic Management Application CSS
ATN	Aeronautical Telecommunications Network
ATNPKT	ICAO Doc 9896 Dialog Service Protocol Data Unit
ATOP	Advanced Technologies and Oceanic Procedures
ATS	Air Traffic Services
ATS	Air Traffic Systems
ATS	Air Traffic Specialist
ATSC	Air Traffic Services Communications
ATSS	Airway Transportation System Specialist
ATT	Application Technology Type
AUD	Application Untyped Data
AUDIO	Audio adapter of processor
AUTO HO INHIB	Auto Handoff Inhibit (View Header)

B	
B&C	Builds and Controls
BC	Bus Connector
BCG	Brightness Control Group
BCN	Beacon
BCP	Backup Channel Processor
BEP	Back End Processor; see DCGS BEP
BERC	Beacon Radar Data Count
BFTA	Beacon False Target Analysis
BG	Backup Generator/Below Ground
BGS	Global System Monitor, Mode Manager
BIDI	Bi-Directional Interface
BIP	Backup Interface Processor
BIS	Boundary Intermediate System
BLKQC	Blocked List/Log On Query - Channel
BLKQN	Blocked List/Log On Query - NAP
BOM	Bill of Materials
BPR	Build Packaging Request
BS	Basic Services
BSDU	Broadcast Services Data Unit
C	
C	Conformance
CA	Conflict Alert
CAS	Calibrated Airspeed
CAS	Commercially Available Software
CASE	Computer-Assisted Software Engineering
CASM	COTS Software Management Processor (AIX)
CASMA	AIX CAS Management Processor
CASMP	COTS Software Management Processor (AIX)
CASMS	Solaris CAS Management Processor
CAT023	FAA ASTERIX Category 23 report
CAT033	FAA ASTERIX Category 33 report
CBP	CMAP Base Processing
CBTP	CMS Block Transmission Protocol

CCB	Change Control Board
CCU	Central Control Unit
CD	Change Document
CD	Chief Designer
CD	Compact Disc
CDA	Current Data Authority
CDB	Conflict Data Block
CDE	Consolidated Development Environment
CDG	Direct Console Display Generation
CDP	CMAP Data Proxy
CD-ROM	Compact Disc – Read-Only Memory
CDRW	Compact Disc-Rewritable
CE	Chief Engineer
CENRAP	Center Radar Approach Control
CERA	Controller-Entered Reported Altitude
CFAD	Composite Flight Data Processing
CFR	Configuration Report
CFR	Continuous Flight Plan Readout (View Header)
CFR	Continuous Flight Readout
CHI	Computer Human Interface
CI	Change Instrument
CID	Computer Identification
CLNP	Connectionless Network Protocol
CM	Configuration Management
CMA	Context Management Application
CMAP	Context Management Application Processing CSCI
CMBR	Configuration Management Build Request
CMD	Command
CMI	Command Message Injector
CMS	Common Message Set
CMSRV	Configuration Management Server
CMU	Communications Management Unit

CODE	Beacon Code (View Header)
COMDIG	Common Digitizer Data Reduction
COMM	Communications CSCI
CONUS	Continental United States
COORS	Coordinating Task
COR	Correlated
COTS	Commercial-Off-The-Shelf
CP	Conflict Probe
CPB	Conflict Probe Processing
CPDLC	Controller Pilot Data Link Communications
CPP	Conflict Probe Processor
CPR	Conflict Probe Reports
CPU	Central Processing Unit
CR	Change Request
CRAD	Composite Radar Data Processing
CRD	Computer Readout Device
CRL	Control Room View
CRR	Continuous Range Readout (View Header)
CS	Central Services
CSCI	Computer Software Configuration Item
CSMA/CD	Carrier Sense Multiple Access with Collision Detection
CSP	Constraint Satisfaction Point
CSR	Command Syntax Report
CSRD	Central System Release Depository
CSS	Common Shared Service
CSV	Comma Separated Values
CT	Component Trace
CTAS	Center TRACON Automation System
CTS	Clear To Send
CTS	Coded Time Source
CTXSRVW	Citrix Server
CU	Console User
CUT	Coordinated Universal Time
CWA	Center Weather Advisory

CWP	Controller Workstation Processor
CWSU	Central Weather Service Unit
CXSS	Common System Services CSCI
D	
D	Data
DA	Data Accept
D/A	Data/Assistant
D/A-Con	D/A-Position Console
DACS	Digital Aeronautical Chart Supplement
DARC	Direct Access Radar Channel
DASD	Direct Access Storage Device
DASNT	D/Assistant Position Processor
DAU	Distributed Adaptation Update
DB	Data Blocks
DBG	Debug Report
DBUG	Debug
DC	Display Controls
DCAT	Distribution and Cutover
DCM	Desired Configuration Monitoring
D-Con	D-Position Console
DCR	Design Change Request
DCRD	Data Computer Readout Device
DCS	Display Command Simulator
DCT	Delayed Countdown Time
DCX	Comma Display Generator to the R-Position
DDSP	Data-Position Departure Spacing Program Processor
DEP	Departure List (Toolbar Display)
DEPT	Departure List (View Header)
DER	Debug Extraction Report
DESP	Design Recording Processor
DEV	Development
DGN	Diagnostics
DISK	Hard disk of processor

DL	Departure List
DLIC	Data Link Initiation Capability
DME	Distance Measuring Equipment
DMZ	Demilitarized Zone
DNS	Domain Name Server
DOORS	Dynamic Object Oriented Requirements System
DP	Departure Procedure
DPD	Display Processor – D-Position
DPDA	Display Processor – D/A-Position
DPE	Data Parsing Engine
DPR	Display Processor – R-Position
DPS	Departure Procedures
DR&A	Data Reduction and Analysis
DRA	Data Reduction and Analysis
DRAP	Data Reduction and Analysis Processor
DREC	ECG DARC Radar Ethernet Coverage
DRI	Distance Reference Indicator
DRM	Development Release Manager
DRP	Display Recording and Playback (CSCI)
DS	Display System
DSL	Digital Subscriber Line
DSM	Display Services Management
DSP	Departure Spacing Program
DSPLY	Display
DSR	Display System Replacement
DSRV	Display Services CSCI
DSS	Display Support Services
DS-User	PGW Dialog Service User
DT	Data Test message
DVD	Digital Video Disc/Digital Versatile Disc
DVu	D-Position Views
DYSIM	Dynamic Simulation
E	
EADP	ERAM Adaptation Build Tool and CSCI

EAPP	Ethernet Port for Application LAN Connection
EBEM	Ethernet Port on NAP Subsystem for DCGS BEP M&C LAN Connection
EBEO	Ethernet Port on NAP Subsystem for DCGS BEP Operational LAN Connection
EBIP	Enterprise Business Intelligence Portal
EBUS	Enhanced Back-up Surveillance
ECCB	Engineering Change Control Board
ECG	En Route Communications Gateway
ECGIP	ECG Interface Processor
ECG RFW	En Route Communications Gateway Router/Firewall
ECS	External Communication Services
EDB	Enhanced Data Block
EDCT	Expected Departure Clearance Time
EDD	Enhanced Data Display
EDEV	ERAM Development CSCI
EDS	Electrostatic Discharge
EDSM	En Route Display Management CSCI
EECG	Ethernet En Route Communications Gateway
EEPROM	Electrically Erasable Programmable Read-Only Memory
EFC	Expected Further Clearance Time
EFEM	Ethernet Port on NAP Subsystem for PGW FEP M&C LAN Connection
EFEO	Ethernet Port on NAP Subsystem for PGW FEP Operational LAN Connection
EGIP	ERAM General Information Processing CSCI
EINF	ERAM Support System Infrastructure CSCI
E-LDB	Enhanced Limited Data Block
ELOM	ERAM Lab Operations Management
EM&C	Ethernet Monitor & Control
EM&C	Ethernet Port for M&C LAN Connection
E-MSAW	Enhanced Minimum Safe Altitude Warning
EMSAW	En Route Minimum Safe Altitude Warning

ENP RFW	ERAM National Processing Router Firewall (M&C and Ops)
ENPRM	Ethernet Port on NAP Subsystem for Connection to National Processing Router for M&C Data
ENPRO	Ethernet Port on NAP Subsystem for Connection to National Processing Router for Operational Data
ENS	ERAM National Site
ENV	Environment
EOD	Exceed onDemand
EOPD	ERAM Offline Problem Determination
EPROM	Erasable Programmable Read-Only Memory
EQUIP	Equipment
ER	Enhancement Request
ERAM	En Route Automation Modernization
ERFMP	En Route Flow Management Point
ERIDS	En Route Information Display System
ERRMON	Error Monitor
ES	Enterprise Storage
ESA	En Route Separation Analysis
ESAS	ERAM SWIM Application Services
ESATD	En Route Surveillance Airborne Target Display
ESET	Systems Engineering Requirements Management MCSC (EDEV)
ESIM	Ethernet Simulation
ESM	Environmental Service Module
ESR	Event Statistics Report
ESRM	ERAM System Release Management
ESS	Enterprise Storage Subsystem
ESS	Enterprise Storage System
ESSC	En Route System Support Complex
ESSM	ESSC System Support Manual
ESSP	Enhanced Site Support Processor
ESUB	ERAM Sub-System Simulation CSCI
ESYNC	Ethernet Synchronization

ETF	Electronic Transfer File
EVRI	Excessive Vertical Rate Indicator
EWDP	En Route Weather Data Processing CSCI
F	
FAA	Federal Aviation Administration
FAAAC	FAA Academy
FAATC	Federal Aviation Administration Technical Center
FACSFAC	Fleet Air/Area Control and Surveillance Facility
FAL	Facility Alert List
FANS	Future Air Navigation Service
FAV	Fixed Airspace Volume
FC	Fibre Channel
FC-AL	Fibre Channel-Arbitrated Backup
FDB	Full Data Block
FDD	IFPA/URET's Flight Data Distribution
FDDI	Fiber Distributed Data Interface
FDIO	Flight Data Input/Output
FDM	Flight Data Management
FDP	Flight Data Processing
FDPP	Flight Data Processing Processor
FDPS	Flight Data Processing Server
FDR	File Deletion Request
FDSIM	FlightDeck Simulation
FE	Fast Ethernet
FEL	Flight Event Listha h
FEP	Front End Processor; see PGW FEP
FG	Functional Group
FIFO	First In First Out
FIS	Flight Information Service
FLTS	Flight Services CSCI
FMA	Flight Monitor Agents
FMS	Flight Modeling Services
FN_AK	AFN Acknowledgement message (uplink)

FN_CON	AFN Contact message (downlink)
FOSS	Free and Open Source Software
FP	Flight Plan
FP	Front Panel
FPA	Fix Posting Areas
FPM	IFPA/URET's Flight Plans Management
FPMDM	Flat Panel Main Display Monitor
FPR	Flight Plan Report
FPS	Flight Planning Services
FPSA	FlightDeck Proxy Sub-Agent
FR	Flight Plan Readout Request Message
FRD	Fix Radial Distance
FRU	Floor-Replaceable Unit
FRZN	Frozen Indicator
FS	Facility Subsystem
FS	Flight Strip
FSE	Fail Safe Electronics
FSP	Flight Strip Printer
FT	Feet
FTI	FAA Telecommunications Infrastructure
FW	Firmware
G	
GB	Gigabyte
GBAS	Ground Based Augmentation System
GFE	Government Furnished Equipment
G/G	Ground/Ground
GHz	Gigahertz
GI	General Information
GIe	General Information Processing
GigE	Gigabit Ethernet
GIM-S	Ground-based Interval Management – Spacing
GMR	General Modification Request
GMS	Global Monitor Support
GPD	Graphic Plan Display

GPI	General Purpose Input
GPI/O	General Purpose Input/Output
GPO	General Purpose Output
GPR	General Purpose Registers
GPWS	Ghost Pilot Workstation
GPWxP	General Information Processing and Weather Processor
GROUP SUPP	Group Suppression (View Header)
GSGT	Graphical Simulation Generation Tool
GUI	Graphical User Interface
H	
HADDS	Host-ATM Data Distribution System
HCS	Host Computer System
Hdg/Spd	Heading/Speed
HERT	Host Embedded Route Text
HID	Host Interface Device
HMM	Hardware Maintenance Manual
HOLD	Hold List (View Header)
HP	Holding Pattern
HPG	Height Processor Group
HSF	Heading/Speed/FreeForm Text
HSL	High Speed Link
HW	Hardware
Hz	Hertz
I	
IAFDOF	Incorrect Altitude For Direction of Flight
IAR	Instruction Address Register
IAS	Indicated Airspeed
IAVP	Immediate Alert Verification Processor
IA1	Interfacility Interface (A1)
IA2	Interfacility Interface (A2)
ICAO	International Civil Aviation Organization
ICD	Interface Control Document
ICL	Inter Computer Link

ICMBR	Interim Configuration Management Build Request
ID	Identification
IDS	Intrusion Detection System
IERR	ICAO Equipment Restricted Route
IETF	Internet Engineering Task Force
I/F	Interface
IFA	Interfacility
IFB	Interfacility Interface Set B
IFCP	Interfacility Conflict Probe
IFPA	Interface Proxy Set A CSCI
IFPB	Interface Proxies Set B CSCI
IFR	Instrument Flight Rules
IFS	Interface Proxy SWIM
IID	Internal Interface Document
IIF	Integration and Interoperability Facility
ILS	Instrument Landing System
IMC	Initial Monitor and Control
IMI	Imbedded Message Identifier
INBND	Inbound List (View Header)
IND	Infrastructure Name Distribution
INS	Internal Navigation System
INTI	Interfacility Input
INTO	Interfacility Output
I/O	Input/Output
IOR	Input/Output Report
IP	Internet Protocol
IPC	Inter-Process Communication
IPF	Interface Proxy FlightDeck™
IPL	Initial Program Load
IPOP	Intermediate Point of Presence
IPSec	Internet Protocol Security
IS	Intermediate System
IS&GS	Information Systems and Global Solutions
ISO	International Organization for Standardization

ISTD	Infrastructure Shared Table Distribution
ITT	Integrated Test Tracking
IXA	xSeries Adapter
K	
KB	Kilobyte
KBYTES	Kilobytes
KSD	Keypad Selection Device
KVM	Keyboard, Video, Mouse
KYBD	Keyboard of Display Processor
L	
LA	Low Altitude
LABC	Lab Controller
LAN	Local Area Network
LC	Loosely Coupled
LCD	Liquid Crystal Diode
LCN	Local Communications Network
LDAP	Lightweight Directory Access Protocol
LDB	Limited Data Block
LED	Light Emitting Diode
LGSM	Local Group System Monitoring and Mode Management
LIB	Library
LLC	Lab Logical Control
LMT	Lightweight Memory Trace
LOA	Letter of Agreement
LOM	Lab Operations Management
LPA	Loudspeaker Panel Assembly
LPAR	Logical Partition
LPC	Lab Physical Control
LPP	Licensed Program Products
LPV	Localizer Performance with Vertical Guidance
LR	Link Register
LRM	Local Resource Manager
LRP	Last Recorded Position

LRU	Lowest Replaceable Unit
LSRM	Local System Release Management
M	
M	Mach
MAFA	Mode C Intruder Alert Filter Altitude
Maint	Maintenance
MaintLT	Maintenance Laptop
MaintWS	Maintenance Workstation
MAN	Manual
MAP	Maintenance Analysis Procedure
MAS	Message Assurance Service
MB	Megabyte
MBCT	Metering Boundary Crossing Time
M&C	Monitor and Control
MC	Moderately Coupled
MCA	Message Composition Area
MCD	Moderately Coupled Dependent
MCEB	Monitor, Control, and Events address space on DCGS BEP
MCEF	Monitor, Control, and Events address space on PGW FEP
MCEN	Monitor, Control, and Events address space on NAPP
MCG	M&C GUI
MCI	M&C Interface for exchange of M&C data
MCI	Mode C Intruder
MCILC	MCI ZLC – M&C interface from the ARTCC channel to the ZLC NAP Subsystem
MCITL	MCI ZTL – M&C interface from the ARTCC channel to the ZTL NAP Subsystem
MCP	M&C Processing
MCP	M&C Processor
MCSC	Major Computer Software Component (typically an executable)
MCWS	Monitor and Control Workstation
MDA	M&C Display Application
MDC	Modification Detection Code

MDM	Main Display Monitor
MDM	Multiprogramming Diagnostic Monitor
MEP	Maneuver End Point
METAR	Aviation Routine Weather Report
MFI	Message Function Identifier
MFSSS	Multi-Facility Subsystem State Service
MgW	MISMCP gateway
MHP	Message Handling Protocol
MHz	Megahertz
MI	Manual Intervention
MI	Moderately Coupled Independent
MIFT	Manage Internal Facility Time
MIG	Military Interface Group
MIPS	Master Instructor Pilot and Support
MIS	Meteorological Impact Statement
MISM	Mismatch Indicator
MISMCP	Master Instructor/Support M&C Processor
MITS	Merge Import Tool Suite
MLS	Microwave Landing System
MnC	M&C Monitoring and Commanding
MOA	Military Operations Area
MONF	Monitor Flights CSCI
MR	Map Request
MRP	Meter Reference Point List (View Header)
MS	Microsoft
MSAW	Minimum Safe Altitude Warning
MSG	Message
MSP	Maneuver Start Point
MSP	Message Service function within PGSV
MSR	Machine State Register
MST	Machine-State-Table
MTA	Minimum Track Altitude
MTI	Moving Target Indicator

MWA	Maximum Warning Altitude
N	
N/A	Not Applicable
NAC	Navigation Accuracy Categories
NACp	Navigation Accuracy Categories for Position
NACv	Navigation Accuracy Categories for Velocity
NACCG	Communication Congestion Report
NACK	Negative Acknowledge Status
NAD	National Adaptation Data
NADIN	National Airspace Data Interchange Network
NADP	National Adaptation Data Processing
NADR	National Adaptation Data Release
NAHFA	Facility Event Report
NAIP	Non-U.S. Acc/Automated
NAP	National Application (Subsystem)
NAPBC	LAN Adapter Utilization Report
NAPDF	Data File Utilization Report
NAPHF	Hardware Failure Report
NAPHU	Hardware Utilization Report
NAPP	National Application Processor
NAPPU	Processor Utilization Report
NAPSF	Software Failure Report
NAS	National Airspace System
NASD	National Adaptation Source Data
NAVAID	Navigational Aid
NC	Not Coupled
NCRC	Non-Valid Mode C Radar Data Count
NDS	NOTAM Distribution System
NEPM	National External Processing M&C LAN switch for M&C data
NEPO	National External Processing Operational LAN switch for Operational Data
NESG	NAS Enterprise Security Gateway
NEV	Network Event Viewer
NextGen	Next Generation Air Transportation System

NEXRAD	Next Generation Radar
NFDC	National Flight Data Center
NFS	Network File System
NLDB	Non-Limited Data Block
NIC	Navigation Integrity Categories
NICbaro	Navigation Integrity Categories for Barometric Altitude
NIM	Network Installation Management
NIPM	National Internal Processing M&C LAN switch for M&C data
NIPO	National Internal Processing Operational LAN switch for operational data
NIST	National Institute of Standards and Technology
NM	Nautical Mile
NMIP	Non-U.S. Acc/Manual
NOM	National Operations Manager
Non-RSVM	Non-Reduced Vertical Separation Minima
NOTAM	Notice To Airmen
NRRC	Non-Reinforced Beacon Radar Data Count
NRS	Notice to Airmen Retrieval System
NS	Network Service
NSA	National Security Agency
NSMS	National Systems Management Server
NSR	National System Release
NSRM	National System Release Manager
NTA	National Track Analysis
NTP	Network Time Protocol
NVRC	Non-Valid Mode 3/A Radar Data Count
NWS	National Weather Service
NX	NEXRAD
O	
OCS	Oceanic Control System
ODR	Online Data Reduction
OLC	Online Certification
OLS	Operational LAN Switch (ECG LAN switch)

OMIC	Operations Manager in Charge
OPEX	Operational Exerciser
OPS	Operational
OPSIM	Operational Simulation
OS	Operating System
OSD	Object Sequence Diagram
OSE	Operating System Extension
OSI	Open Systems Interconnection
OU	Operational Unit
P	
PAMRI	Peripheral Adapter Module Replacement Item
PAR	Preferred Arrival Route
PAS	Primary Address Space
PBP	Protocol Gateway Back End Processing
PB User	Play Back Workstation User
PBWS	Playback Workstation
PCI	Peripheral Component Interconnect
PD	Problem Determination
PDAR	Preferred Departure and Arrival Route
PDB	Power Distribution Board
PDF	Portable Document Format
PDR	Preferred Departure Route
PDU	Power Distribution Unit
PE	Permanent Echo
PELocate	Permanent Echo Locator
PEQA	Permanent Echo Quality Assurance
PFF	Protocol Gateway Front End FANS Processing
PGSV	Protocol Gateway Service and Verification CSCI
PGW	Protocol Gateway
PGW DS	Protocol Gateway Dialog Service
PGW FEP	Protocol Gateway Front End Processor
PH	Present Heading
PID	Process ID
PIP	Prime Interface Processor

PLANS	Plans Display (Toolbar)
PMF	Production and Maintenance Facility
PMO	Program Management Organization
PO	Point Out
POS	Position
POSIX	Portable Operating System Interface
POST	Power-On Self-Test
POV	Point of Violation
PPE	Pre-Programmed Events
PR	Problem Report
PREFSET	Preference Set
PRF	Pulse Repetition Frequency
PRI	Primary Search
PROC	Processor
PRODC	Product Control Copy Processor
PROM	Programmable Read-Only Memory
PRR	Problem Resolution Record
PRRC	Primary Radar Data Count
PS	Present Speed
PSIM	Prepare Simulation
PSR	Primary Surveillance Radar
PSVC	Processor Services CSCI
PSVC	Processor Services CSS (encapsulates infrastructure services)
PTR	Program Trouble Report
PVCS	Polytron Version Control System
Q	
QARS	Quick Analysis of Radar Sites
QoS	Quality of Service
QTS	Queuing and Timing Services
R	
R	Red
R/T	Return

RA	Radar Associate
RA	Response Area
RADAR	Radio Detection and Ranging
RAM	Restricted Airspace Monitoring
RAPPI	Random Access Plan Position Indicator
RARRE	Range-Azimuth Radar Reinforced Evaluation
RCC	Route Content Criteria
R-Con	R-Position Console
RCRD	Radar Computer Readout Device
RCU	Remote Control Unit
RDB	Range Data Block
RDP	Radar Data Processing
RDR	Radar Report
RefID	Reference Identification
REL	Release
REMON	Resource Monitor
RFSP	Remote Flight Strip Printer
RFSP	RFSmart Pointer
RFW	Router Firewall
RGL	R Programming Language
RIEE	Route ICAO Equipment Eligibility
RIO	Remote Input/Output
RM	Release Management
RMAN	Oracle Recovery Manager
RPC	Remote Procedure Call
RPD	R-Position Displays
RS	Radio Station
RSB	Range Sort Box
RSC	Remote System Control
RSI	Record Selector Indicator
RSP	Response Time Report
RSSC	Radar Site Status
RTF	Radar Training Facility
RTQC	Real Time Quality Control

RUC	Rapid Update Cycle
RUNLTH	Offline Run Length and Range Distribution
RVSM	Reduced Vertical Separation Minimum
S	
SA	Switch Activity
SAA	Special Activity Airspace
SADD	System Architecture Design Document
SAe	Safety Agents executable
sAER	sync AERO
SAFE	Safety CSCI
SAM	System Adaptation Manual
SAN	Storage Area Network
SAR	System Analysis Recording
SARM	Search and Rescue Mission
SARP	System Analysis Recording Processing CSCI
SAS	Standby Address Space
SASM	System Administration and Security Manual
SBI	Surveillance Broadcast Interface
SBS	Surveillance and Broadcast Services
SC	System Controller
SCAP	Security Certification and Authorization
SCD	Scenarios Datastore
SCDI	Site Control and Display Interface
SCDP	Scenario Development Processor
SCEN	Scenario
SCI	Simulated Command Injection
SCIP	Surveillance Communications Interface Processor
SCM	System Configuration Management
SCMADB	National Adaptation Development Processor
SCMB	Source Change Management Build Processor
SCTP	Stream Control Transport Protocol
SDA	Standard Display Application (Command Input at IMC)
SDCL	SAR Data Collection and Logging

SDD	Situation Data Display
SDD	System Design Document
SDE	Software Development Environment
SDE	Software Development Server
SDEA	AIX Software Development Server
SDES	Solaris Development Server
SDM	Security Device Manager
SDM	Standby Data Management
SDP	Surveillance Data Processing
SDPP	Surveillance Data Processing Processor
SDS	Specialist Display Application (AT Specialist Displays)
sDSM	sync Display Services Management
SDU	Signal Distribution Unit
SE	System Engineering
SecGW	Security Gateway
SecWS	Security Workstation
SEP	Sunhillo ECG Product
SET	Settings
SFGEN	SWAC Field Name Formatting
sFLS	sync FLTS
SFP	Small Formfactor Pluggable
SGET	Scenario Generation Tool
sGIP	sync GIP
SgW	SCDP gateway
SHR	System Health Report
sIFA	sync IFPA
sIFB	sync IFPB
SIGMET	Significant Meteorological information
SIL	Surveillance Integrity Levels
SIM	Simulation
SIM	Simulation Tool
sIMC	Sync IMC
SIMD	Display Processor – Simulated D-Position
SIMDA	Display Processor – Simulated D/A-Position

SIME	Simulation Engine CSCI
SIMP	Simulation Driver Processor
SIMR	Display Processor – Simulated R-Position
SIR	Screening Information Request
SIREAN	Site Registration
SIU	System Interface Unit
SLOC	Source Lines of Code
SMA	Site Maintenance Area
SMGT	System Management CSCI
SMI	Standard Message Identifier
SMIT	IBM System Management Interface Tool
SMM	System Management Manual
sMNF	sync MONF
SMS	Systems Management Server
SMT	Standard Message Text
SNMP	Simple Network Management Protocol
SOC	Service Operations Center
SOP	Systems Operation
SPCN	System Power Control Network
SPECWS	Specialist Workstation
SPI	Special Position Indicator
SPOT	Shared Product Object Tree
SQC	Surveillance Quality Control
SR	Service Request
SRC	Sample Rate Controller
SRC	Sample Rate Conversion
SRR	Service Request Response
SRTQC	Search Real-Time Quality Control
SSA	SAR SNMP Agent
sSAF	sync SAFE
SSC	Surveillance Sort Cells
SSD	System Specification Description
SSecWS	Support Security Workstation

SSF	Site Support Facility
SSH	Secure Shell
SSIM	Start Simulation
SSL	Secure Socket Layer
SSM	State Service Master
sSOP	sync SOP
SSR	Secondary Supplemental Radar
SSR	System Status Report
SSRV	Simulation Server
SupMCWS	Support Monitor & Control Workstation
ST	String Test
STA	Scheduled Time of Arrival
STAR	Standard Terminal Arrival Route
STARS	Standard Terminal Automation Replacement System
STBY	Standby
STC	String Test Case
STF	Support Test Facility
STP	String Test Plan
STP	Support Test Processor
STR	Strips
SUID	System Unique ID
SUM	Simple User Mode
SUP	Support Subsystem
SupWS	Support User Workstation
SURV	Surveillance CSCI
SV	Service Volume
SVC	Standard Message Identifier (SMI) for ACARS Service Messages
SW	Software
SWAC	System Wide Analysis Capability
SWAD	Software Architecture Design
SWCM	Software Configuration Management
SwHD	HADDS Switch
SWI	Simulated WARP/WINS Injection

SWIM	System Wide Information Management
SwMC	M&C Switch
SWMR	Software Modification Request
sWXP	sync WXP
SYNC	Synchronize/Synchronized/Synchronous
SYNCP	Data Sync Processor
T	
TAASC	Target Analyzer of Surveillance Sort Cells
TACAN	Tactical Air Navigation
TAI	TDLS Adapter Interface
TAR	Tape Archive
TAS	True Air Speed
TAV	Terrain Alert Volume
TB	Trackball
TBFM	Time-Based Flow Management
TC	Tightly Coupled
TCBT	Tracking Certification Beacon Tolerance
TCP	Transmission Control Protocol
TCPT	Tracking Certification Primary Tolerance
TCR	Tools Change Request
TDLS	Tower Data Link Service
TDP	Tivoli Data Protection
TDR	Table-Driven Recovery
TDS	Types Dictionary Services
TDT	Types Descriptor Tool
TDX	Target Data Extractor
T&E	Test & Evaluation
TEI	Text Element Identifier
TELCO	Telephone Company
TFM	Traffic Flow Management
TFMS	Traffic Flow Management System
TGF	Target Generation Facility
TI	Technical Instruction

TIMS	Tower Information Management System
TIMS BEP	Tower Information Management System Back End Processor
TJM	IFPA/URET's Trajectory Modeling
TJS	Trajectory Services
TKM	IFPA/URET's Tracks Management
TKS	Track Server
TLL	Terminate Logical Lab
TLSF	Test and Lab Support Facility
TM	Technical Manual
TMA	CTAS Traffic Management Advisor
TMA	Traffic Management Advisory
TMC	Traffic Management Coordinator
TMS	TCP/IP Message Service
TMU	Traffic Management Unit
TO	Technical Operations
TOA	Time of Applicability
TOC	Time of Correction
TOR	Time of Representation
TP	Trial Plan
TPC	Tivoli Storage Productivity Center
TPM	Trial Plan Management
TR	Test Message
TRACON	Terminal Radar Approach Control
TRR	Track Reports
TSIM	Terminate Simulation
TSM	Tivoli Storage Manager
TT	Test and Training
T&T	Test and Training
TTL	Test & Training Lab
TTR	Trajectory Track Report
TTS	Test and Training Services
U	
UA	Update Area

UA	User Acceptance
UART	Universal Asynchronous Receiver Transmitters
UAT	Universal Access Transceiver
UCWA	Urgent Central Weather Advisory
UDM	User Dialog Manager
UDP	User Datagram Protocol
UNC	Uncorrelated Targets
UPS	Uninterruptible Power Supply
URET	User Request Evaluation Tool
US	United States
USAF	United States Air Force
USB	Universal Serial Bus
USDOT	United States Department of Transportation
USYNC	Ethernet Port of Data Sync Processor for point-to-point to URET CP Server Connection
UT	Unit Test
UTC	Coordinated Universal Time
UTC	Unit Test Case
UTM	Unsuccessful Transmission Message
UTP	Unit Test Plan
V	
VFR	Visual Flight Rules
VFR INHIB	VFR Inhibit (View Header)
VHF	Very High Frequency
VLAN	Virtual Local Area Network
VOR	Very High Frequency Omni Directional Range
VPD	Vital Product Data
VPN	Virtual Private Network
W	
WAM	Wide Area Multilateration Service
WAN	Wide Area Network
WARP	Weather and Radar Processor
WIND	Wind Grid Display (Toolbar)

WINS	Weather Information Network Server
WINSRV	Windows Application Server
WJHTC	William J. Hughes Technical Center
WMSCR	Weather Message Switching Center Replacement
WX	Weather
WXP	Weather Processing
X	
XFER	Transfer
XML	Extensible Markup Language
Y	
Y	Yellow
Z	
Z	Zulu
ZLC	Atlanta ARTCC
Symbols	
“--”	View Suppression Pick Area
“M”	Menu Pick Area
“X”	Menu Close Pick Area
1090ES	1090 MHz Extended Squitter

Glossary

Activation Schedule	A designated schedule for activating and deactivating a restriction.
Active Channel	An ERAM channel that is used by the controllers to perform air traffic control.
Adaptable	The ability to update parameters associated with a software function and cause a system to enter a specified operating mode or enable it to perform specific operations upon initialization without software recompilation.
Adaptation	An external process of updating data parameters in one system which is independent of software recompilation. Adaptation may be either controlled at the national level (common to all sites) or locally (independently altered to fit the needs of a specific site).
Adapted Arrival Route (AAR)	An ATC applied routing that specifies a flight path to an airport.
Adapted Departure Arrival Route (ADAR)	An ATC auto route that replaces the filed route from the departure airport to the destination airport.
Adapted Departure Route (ADR)	An ATC auto route that replaces the route of flight from the departure airport to a designated transition fix.
ADS-B Report	Messages received by ERAM from SBS in one of two forms — Category 033 or Category 023.
Adapted Fix	A fix having an adapted definition in local CP adaptation.
Air Traffic Services Facilities Notification (AFN)	An Air Traffic Services (ATS) application which enables an ATS provider system to become aware of an aircraft's datalink capabilities and provides an exchange of address information. AFN is the Data Link Initiation Capability (DLIC) application for the FANS protocol.
Aircraft Address	Also known as Target Address. The 24-bit unique address assigned to Mode S and ADS-B equipped aircraft.
Aircraft Converted Route	The route from the aircraft's present position forward along the converted flight plan route and including reconformance maneuvers necessary to rejoin that route. Output from the Route Conversion function is used as input to build a trajectory.
Airport Stream Filter (ASF)	Inhibits conflict notification among flights to and from the adapted airports at the adapted sector.

Alarm	For M&C purposes, a visual indication that a monitored parameter is outside the specified acceptance range. The visual indication may be reinforced by an audio signal. A high priority (critical) event. For Maintainer CHI, an alarm is a Critical Event.
Alert	For M&C purposes, a visual indication of a change in an operational status/condition of a hardware device, software component, or interface. The device/component/interface is still capable of performing all of its functions at the required performance level, but some internal aspect of the device/component/interface has degraded or failed, and the functions may further degrade or even fail unless action is taken. The visual indication may be reinforced by an audio signal. For Maintainer CHI, an alert is a Warning event.
ALine	A line that, if intersected by an aircraft's route, forces that aircraft's flight plan onto an Adapted Arrival Route.
Angulation	Background shading from the start of the Flight ID through the end of the Route field of an Aircraft List or a Departure List entry. Such shading is used for aircraft entries the user deems may require special attention.
Application Program Tools	Tools used primarily for debugging individual applications. Using the core file and Aprobe tool allow users to analyze a particular application.
Arrival Stream Filter (ASF)	A capability that inhibits the conflict notification for aircraft-to-aircraft conflicts approaching destination airports.
ATC Preferred Routes (APR)	Used to place aircraft on controller preferred routes into airports.
Automatic Dependent Surveillance - Broadcast (ADS-B)	Name for broadcast self-reported position by equippage on board an aircraft. The current equippage supported are transponders equipped with 1090 Extended Squitter, based on industry standard Modes S transponders, and Universal Access Transceiver.
Backup Channel	An ERAM channel that is not used by controllers to perform air traffic control, but is being synchronized by data from the Active channel to allow it to become the new Active channel upon M&C command.
Blocked List/Log On Query – Channel (BLKQC)	The interface from the NAP Subsystem to both channel A and B at all 20 ARTCCs.
Blocked List/Log On Query – NAP (BLKQN)	The interface from an ARTCC to the Active NAP Subsystem.
Broadcast Services Data Unit	The presentation layer message format for FAA ASTERIX messages.
CAT023 Report	The FAA ASTERIX Category 23 format application message for SBS Service Volume monitoring.

CAT033 Report — The FAA ASTERIX Category 33 format application message for ADS-B position reporting.

Certification — The technical verification performed prior to commissioning and/or service restoration after a scheduled/unscheduled interruption affecting certification parameters and periodically thereafter, inclusive of the insertion of the prescribed entry in the facility maintenance log. The certification validates that the system is providing an advertised service to the AT operator and maintainer and/or that the system/equipment is capable of providing that advertised service. It includes independent determination about when a system/equipment should be continued in, restored to, or removed from service.

NOTE: Certification parameters are selected indicators of the quality of the services being provided for systems, subsystems, and equipment.

Certification Parameter — Certification parameters are selected indicators of the quality of the services being provided for systems, subsystems, equipment, and service.

Clutter Zone — A region of clutter for certain primary radars.

CMAP Data Proxy (CDP) — The piece of CMAP running on CPP Server.

Code for Removal — Display action to indicate subject display records will be deleted after an adapted interval.

Coding — The coding of an object is the description of its physical characteristics including line style (solid, dotted, long dashed, short dashed, dots and dashes) and audible alarms. The coding information in display format definitions is expressed as semantically meaningful identifiers that are defined in display adaptation data outside of display format definitions.

Cold Start — System initialization without checkpoint data.

Collection — A SAR recording that contains a buffer of data that contain smaller items.

Collimation — An SDP function that calculates range and azimuth differences between beacon and primary radar data received from the same site. Collimation is applied to co-located primary and secondary radars that view the same target. Its purpose is to reconcile measurement differences between the sensors that are due to misalignments and biases.

Computer-Human Interface (CHI) — The means by which users interact with the system. It includes physical data entry devices (e.g., keyboard, trackball), physical displays, user commands, and presentation/formats of views.

Configuration	The manner in which the hardware and software of an information processing system are organized and connected.
Conflict Notification	A conflict that has been assigned to a designated sector position.
Conflict Notification Type/Level	Classes of conflict identified by CP that result in Conflict Notification. The three conflict notification types are defined as follows, from highest to lowest priority: Aircraft-to-Aircraft high criticality: Level 1 - The predicted loss of horizontal separation between aircraft trajectories is less than 5 miles. Level 2 - The predicted loss of horizontal separation between aircraft trajectories is less than 5 miles if loss of separation occurs on a portion of the route where an altitude transition is planned but not cleared. Aircraft-to-Aircraft low criticality: Level 1 - The aircraft-to-aircraft conflict is not considered high criticality, and the predicted loss of horizontal separation is between 5-12 miles. Level 2 - The aircraft-to-aircraft conflict is not considered high criticality, the predicted loss of horizontal separation between aircraft trajectory conformance bound is between 5-12 miles and loss of separation occurs on a portion of the route where an altitude transition is planned but not cleared.
Conflict Probe (CP)	An RA-Position strategic conflict detection application which detects both aircraft-to-aircraft and aircraft-to-airspace conflicts. It also provides the capability to check proposed flight plan amendment for conflicts prior to implementation.
Context Management Application Processing (CMAP)	Responsible for correlation of aircraft CPDLC logon requests with existing flight plan data.
Control	The ability to change the state of monitored system elements.
Controller Pilot Data Link Communications (CPDLC)	A method by which air traffic controllers can communicate with pilots over a data link system.
Converging Towards Route	The condition of laterally out of conformance aircraft whose Track Course indicates that the aircraft is returning to its Flight Plan Converted Route.
Converted Fix	A fix contained in the Aircraft Converted Route or the Flight Plan Converted Route.
Converted Flight Plan Route	A series of points in the horizontal dimension that describes a flight path over the surface of the earth, as indicated in the flight plan.
Coordination Fix	A point along the route of flight that is used as a common point of reference in a flight plan message coordinated with an external facility for the following interfaces.

Corrected Mode C Altitude	A point along the route of flight that is used as a common point of reference in a flight plan message coordinated with an external facility for the following interfaces. Transponded altitude corrected for local barometric pressure. ERAM applies this correction for all received Mode C altitudes below, nominally, 18,000 feet. Assuming the pilot and ERAM are both using the same local barometric pressure and ignoring instrumentation error, corrected Mode C altitude is identical with indicated altitude. ERAM provides corrected Mode C altitude to CP.
Critical	Services and data paths for which failure would prevent AT operators from exercising safe separation and control over aircraft.
cron-job	An AIX function that allows for scheduled execution of AIX commands on specific days and at specific times.
Current Plan	The plan that a flight is currently expected to fly. A Current Plan is used for modeling the trajectory and, when APD eligible, for detecting conflicts.
Current Plan Conflict	Conflict in which both trajectories involved in the conflict are Current Plan trajectories.
Data Parsing Engine	Parses input SAR data into individual records of data and passes the individual records to analysis routines. DPE has the ability to process records that only meet a certain filtering criteria, so as to limit the amount of information that needs to be processed. This filtering is specified through the use of environment variables.
Default	A displayed parameter value that represent the typical or most commonly used unit. This default value can be changed by the maintainer.
Degraded	Availability status of a resource, component, service, or interface indicating that it is functioning with loss of some capability or loss of redundancy.
Disabled	A commanded state of an interface indicating ERAM is not supposed to be communicating with it or of a capability that ERAM is not executing.
Distance Reference Indicator	A Distance Reference Indicator, also referred to as a halo, is a circle displayed around a target symbol on the air traffic controller's monitor to help maintain proper aircraft separation. The Standard distance reference indicator (nominally 5 nm) is a two-pixel wide, solid, yellow circle. The Reduced distance reference indicator (3 nm) is a two-pixel wide, yellow circle with 15-degree gaps centered at each of the 4 cardinal heading points (0, 90, 180 and 270 degrees).

Distribution and Cutover (DCAT)	A method used for updating the system releases.
Diverging From Route	The condition of laterally out of conformance aircraft whose Track Course is diverging from its Flight Plan Converted Route. An aircraft is considered to be diverging from Route if the following conditions are true. The aircraft's Track Course does not intersect Flight Plan Converted Route at a point forward of the aircraft's current Track Reported position as projected onto the associated Flight Plan Converted Route segment. The aircraft's Track Course does not pass within a preset distance.
DLine	A line that, if intersected by an aircraft’s route, forces that aircraft’s flight plan onto an Adapted Departure Route.
Down	Availability status of a resource, component, service, or interface indicating that it is no longer functioning or the M&C is no longer is receiving status from or about it and M&C is expecting to receive status.
Element	An addressable system or hardware unit such as disc drive, PC workstation, or LAN server. Redundancy management by the HCS is performed for elements. Typically refers to a hardware device (box or rack) and is the lowest level of equipment diagnostics.
Emergency codes	Special Mode 3/A codes used to indicate certain distress situations, i.e., code 7700 -emergency, code 7600 - radio communications failure, code 7500 - hijack.
Enabled	A commanded state of an interface indicating ERAM is supposed to be communicating with it or of a capability that ERAM is executing.
ERAM SWIM Application Services (ESAS)	Provides SWIM FIS and other SWIM services.
Eswim_A	Ethernet Port for connection to SWIM Channel A router.
Eswim_B	Ethernet Port for connection to SWIM Channel B router.
Eswim_Ap	Ethernet Port for SWIM Channel Apps.
Eswim_Db	Ethernet Port for connection to SWIM redundant database.
Event	Any state change or reportable condition (for example, abnormal conditions, faults, return to normal operation, operational messages, threshold transition, status change, software faults, and so forth). For Maintainer CHI, an event is a Critical, Warning, Information, or Recovery event.

External Interfaces	External interfaces are direct electronic connections where any portion lies outside the physically secure areas of the site. External interfaces include all electronic interconnections to other locations, including other FAA sites, the WJHTC, and the FAA Academy. This includes both permanent and temporary connections (for example, dial-in/dial-out connection over the public switched telephone network).
Fault	A condition of a configurable item which degrades or interrupts its ability to perform one or more of its designated functions.
Flight Plan Converted Route	A sequence of fixes derived from the Flight Plan that comprises the aircraft horizontal route.
Footprints	A FlightDeck mechanism used primarily for debugging QTS internals, collecting event information, and logging FlightDeck API calls for use by the FlightDeck Simulator.
Functional Group (FG)	A functional group is an address space that may be loaded on many processors in the ERAM system, but that does not have a primary or secondary address space within a processor group. That is, each instance of the FG does its own processing independently of other instances.
Future Air Navigation Service (FANS)	Supports ATC communications and surveillance capabilities.
Halo	See Distance Reference Indicator.
Horizontally Reasonable Track Report	A Track Report is Horizontally Reasonable for an aircraft if the estimated horizontal distance traveled between a previous Track Report and the currently received Track Report is less than a calculated maximum distance (based on trajectory-predicted speed) and greater than calculated minimum distance (based on trajectory-predicted speed).
Hypervisor	The hypervisor is a very low level software system that was initially the part of the AIX machines that helped handle logical partitions (i.e. running multiple operating systems). It has since increased functionality to also help handle CPU allotment and general OS overhead management. As of the P5s, the hypervisor is automatic. The hypervisor reserves a small amount of memory to allow it to function.

ICAO Codes

ICAO codes apply to fixes and airports, and are either imported from Jeppesen or set by EADP.

- K# - designates a geographical area of the United States as indicated in published data from ARINC 424.
- KN – designates an airport of fix published from NFDC and not in ARINC 424 data.
- KD – designates the fix was created as a result of importing DACS military route data.
- K<L> – If not an N or a D, the <L> is the last character of the computer ID of the ARTCC that created the definition. Since KN and KD are already used for DACS and NFDC, KZ is used for ZCN (New York) and KE for ZCD (Denver).
- All other ICAO codes are for non-US regions as indicated in published data from ARINC 424.

Inhibit

To prevent the operation of a function. When a function is "inhibited", it is not performed.

Interface Proxy FlightDeck™ (IPF)

Control/support the MFSSS communication between NAP Subsystem and Channels.

Interfacility (IFA)

Between facilities or system within different facilities, for example between ARTCC and ARTCC or between CPs in different facilities.

Interfacility Current Plan (IFCP)

The plan that is sent from a CP in an owning ARTCC to the affected CPs. It contains flight and reconformance data that are used by affected CPs to model the trajectory and, for APD-eligible flights, to probe for conflicts.

Invalid Protocol Service

One of several varieties of errors detected by the router/firewall when data is received that violates its access list rules. The network protocol service used in the data packet, such as telnet, smtp, http, or ftp, is not permitted. Service refers to the application/port using the protocol. For example, the access rule may state that UDP is permitted, but only when the application is snmp.

Invalid Protocol Type

One of several varieties of errors detected by the router/firewall when data is received that violates its access list rules. The network protocol used in the data packet, such as IP (or the finer-grained TCP or UDP), DECnet or Appletalk, is not permitted.

Lateral Out of Conformance

The condition declared when an adapted number of consecutive track reports indicate that an aircraft is flying outside the conformance envelope adapted to either side of its trajectory model centerline.

Lightweight Directory Access Protocol (LDAP)	An AIX directory service used by operational support processors for user administration and authentication.
Longitudinal Out of Conformance	The condition declared when an adapted number of consecutive track reports indicate that an aircraft is flying outside the conformance envelope adapted ahead and behind its trajectory model along route distance point.
Look Up Table	Used to map numeric values to strings used in generated output.
M&C Position	Composed of two M&C subpositions. See definition for M&C subposition.
M&C Processor	Rack-mounted processors that provide centralized monitoring, controlling, and recording for the ERAM system.
M&C Subposition	Located in the SOC, it is composed of one M&C workstation, one KVM switch, and one M&C Processor.
M&C Workstation	Located in the SOC, it is composed of one M&C workstation processor, two displays, one keyboard, one mouse, and two speakers.
Maintainer	A person who performs maintenance tasks (e.g., diagnostics, maintenance, certification, software management) on the system components. This includes M&C and support personnel.
Maneuver End Point (MEP)	Symbology (asterisk) displayed on the projected route of flight to indicate when the altitude maneuver is predicted to be completed.
Maneuver Start Point (MSP)	Symbology (asterisk) displayed on the projected route of flight to indicate when an altitude maneuver is predicted to start. Also displays an Up or Down arrow to indicate the direction of the maneuver.
Manual Intervention (MI)	State of a processor indicating it has stopped initializing or stopped reloading after processor restart, and it is awaiting a maintainer command to proceed or to be shutdown.
Message Assurance Service (MAS)	A Standard Message Identifier (SMI) for Message Assurance Service.
Message Handling Protocol (MHP)	A message type of the ERAM to TDLS interface.
Modified M&C Subposition	Located in the equipment room, it is comprised of one M&C workstation (modified from that found in the SOC, with one less display) and one M&C processor.
Monitor and Control	A function that provides control over other systems and monitors system performance and status parameters.

National Airspace System	The U.S. flight environment. The NAS includes: air navigation facilities, equipment and services, airports and landing areas; aeronautical charts, information, and information services; rules, regulations and procedures; manpower; and material.
National Application Processor (NAPP)	The system processor type for the NAPP (processor) on the NAP Subsystem.
Navigation Accuracy Categories (NAC)	NAC is an umbrella term for both NACp and NACv.
Navigation Accuracy Categories for Position (NACp)	NACp is reported to permit a surveillance application to determine if a position report is sufficiently accurate for the intended use. The accuracy is one of 12 possible circle radii, such that the position report has a 5% probability of being outside the reported circle radius.
Navigation Accuracy Categories for Velocity (NACv)	NACv is reported to permit a surveillance application to determine if a position report's velocity is sufficiently accurate for the intended use. The accuracy is one of 5 possible horizontal and vertical velocity error values, such that the position report velocity error has a 5% probability of being beyond the reported velocity error.
Navigation Integrity Categories (NIC)	The NIC specifies one of 12 containment radius values for a position report in a FAA CAT033 message.
Navigation Integrity Categories for Barometic Altitude (NICbaro)	The NICbaro subfield specifies that the barometric pressure altitude has been cross-checked agaist another source of presure altitude in a UAT position report.
Neighboring Facility	A term used in CP interfacility processing in reference to other CP-equipped facilities whose airspace overlaps a given facility’s APD boundary.
Network File System (NFS)	An AIX function that provides access to disk drives on other processors, connected through the LAN or the SAN.
Network Installation Management (NIM)	An AIX tool that provides the capability to remotely install software from a server processor (the NIM server) to a client processor (the NIM client).
Network Tools	Are tools that deal with communication software and hardware. Uses of these tools include debugging communication problems and analyzing message traffic. This includes the iptrace, ipreport, tcpdump, and netstat commands.
Non-Conforming	A processor is executing a different APL release than that of the M&C processor on the same channel with the PAS (Rank 1) BGS address space.
Not Yet Heard From	The MCG Functional Group (FG) in the workstation has not yet received status, state, or performance information on a resource from the MnC Operational Unit (OU) in the M&C processors.

Notification	Information provided to the maintainer indicating the occurrence of an event.
Operational Unit (OU)	An operational unit consists of one or more instances (in ERAM, the maximum number of instances in an OU is two, which is also the maximum number of processors that can be in the same group) of an address space on processors in the same group. If there is more than one instance of the address space in the group, one will be the Primary Address Space (PAS) and the other will be the Secondary Address Space (SAS). The PAS does the actual data processing and provides whatever functionality is supported by the address space. The SAS is basically a hot standby. It may receive Standby Data Management (SDM) data from the PAS, or it may receive the same data as the PAS – for example, radar data – but buffer it rather than processing it and sending out the processed results. If the PAS should fail, the SAS is automatically promoted to be the new PAS and begins processing the data and sending out the results of its processing, while the address space reloaded on the other processor becomes the new SAS.
Oracle Recovery Manager (RMAN)	An Oracle component to perform backup and restore of Oracle databases.
Owning ARTCC	The ARTCC that owns a particular flight track; used in CP interfacility processing.
Performance Trip	A performance threshold has been exceeded.
Plan	Information about a flight as well as pilot and controller intentions regarding that flight. Such plans include Flight Plans, Current Plans, and Trial Plans. The term also is used to refer generically to all of the preceding.
Plan Processing	A capability that accepts processes, stores, maintains, and deletes plans.
Planned Action	An altitude or speed change which is planned for a future time. Planned Actions are listed in increasing ARD order and are used to guide the construction of a trajectory.
Processor Tools	Tools used to analyze problems affecting processors as they are utilized by ERAM software. Performing system dumps, traces, traps, and kernel debugger functions as well as using the vmstat, tprof, topas, rmss, and rmap commands allow users to gather information on processor status.
Protocol Gateway Back End Processing (PBP)	PGSV address space running on the BEP.

Protocol Gateway Front End FANS Processing (PFF)	PGSV address space running on the FEP.
Protocol Gateway Front End Processor (PGW FEP)	Interfaces with the FAA's security boundary external Demilitarized Zone (DMZ) and acts as the FEP for operational data traffic between the DCP and DCNS.
Radar Smoothed	The system overall computation for Registration Calculation Correction of range and azimuth for an individual radar. It uses all the individual radar pairs calculated values to that radar. Then calculates a recommended range and azimuth correction to optimize the correlation of surveillance data between that radar and all it's overlapping radars.
Radar Total Filter	A volume of airspace in which all radar reports are discarded by SURV.
Radio Station (RS)	Part of the ground segment of the SBS system that receives ADS-B messages from aircraft and test equipment that are forwarded to the SBS SDP for assembly into FAA CAT033 messages.
Redundancy	The addition of resources beyond those needed for normal operation of a data path to increase reliability and to allow scheduled maintenance to be performed without interruption or critical or essential services. A redundant resource is available during the intervals that is able to assume the functions of the corresponding non-redundant resource.
Registration (Radar-based)	An SDP function that calculates range and azimuth differences between beacon radar data received from two different radar sites. A registration error refers to two beacon radars reporting the same target at different positions. Its purpose is to reconcile measurement differences between the sensors that are due to misalignments and biases.
Registration (ADS-B-based)	An SDP function that calculates range, azimuth, and time differences between beacon data received from a radar site and ADS-B target data received from SBS. A registration error refers to the beacon radar reporting a target at a different position than the ADS-B data. Its purpose is to reconcile measurement differences between the sensors that are due to misalignments and biases.
Released to Test	Commanded state of an interface indicating that operational ERAM software is no longer communicating with the interface so that Test and Training channel can communicate with it.
Report	Formatted information intended to be printed. The formatting may be textual and/or graphical and may also be displayed electronically.

Reports	The analysis and presentation of data to maintainers or AT operators. This covers a very wide range of presentations that include: the presentation of faults by the lighting of fault indicators; the presentation of NAS service and infrastructure configuration and/or status; predefined format reports on any aspect of the NAS operation; reports whose format is controlled partially or completely by maintainer input; reports which are either completely textual or partially textual and partially graphics, as determined by maintainer input.
Restart	An event that initiates recovery.
rootvg	The disk volume group from which AIX boots, the rootvg volume group contains all the AIX operating system files.
SAR	The primary system analysis and debug collection mechanism for ERAM. It is a continual, system-wide recording to a permanent medium. Data recorded to SAR is normally type data meaning there is a data structure that defines the recorded data. The system continuously collects SAR data and saves it on the enterprise storage archive volume for 15 days.
Select	A single click with the left mouse button.
Service Volume (SV)	An airspace region that is defined for the provision of ADS-B services. Each ADS-B Service has defined Service Volume dimensions that identify the location and extent of the airspace covered by that Service. Each Service Volume carries a particular domain designation: Terminal, En Route, En Route High Update, or Composite Traffic Volume (CTV). A Composite Traffic Volume (CTV) is a type of Service Volume (SV) that provides ADS-B surveillance for the center's entire Area of Interest (AOI). Nominally the CTV area covers 50 miles beyond the AOR. Each SV is a set of one or more closed irregular polygonal volumes in which surveillance coverage is provided by a selected set of radio stations. ADS-B Service Volumes may overlap. The SBS system delivers ADS-B reports to each ARTCC for targets inside the applicable SV, and filters out target reports from outside the applicable SV.
SFGEN	A tool used to assist with the creation of field name formatters.
Simple Password	A password entered into a privileged command dialog box, along with a valid Maintainer ID, to enter a privileged command. A Simple Password is three to twelve characters long.
Small Display	The small display is the 20.1" display that is part of the M&C subposition located in the SOC. Additionally, it is the display for the modified M&C subposition located in the equipment room.

Stable Track History	A Track History whose course does not vary over time beyond an adapted tolerance.
State Change	A change in the administrative or availability status of a resource that is not a failure or degradation.
Status Change	A change in the administrative, environmental, operating, or performance condition of a resource or a change in its availability. Changes of status also include system interfaces, loss of surveillance source, interfacility communications, and data that affect decision support processing.
Status Operating	a. Normal – the system is fully capable of performing all of its functions at the ideal level of performance. All components/sub-elements of the system are operating normally and no corrective maintenance action is required. b. Warning – the system is capable of performing all of its functions at the ideal level of performance, but some internal aspect of the system has degraded or failed and the function of the system may degrade or fail unless management and/or maintenance action is undertaken. c. Degraded – the system is capable of performing at an acceptable but less than ideal level of performance. d. Failed – the system is incapable of performing at an acceptable level. e. Unknown – the capability of the system to perform at any level of performance cannot be determined.
Strong Password	A password entered into a channel logon dialog box, along with a Maintainer ID, to log in to a subposition. A Strong Password is eight to twelve characters long incorporating alphanumeric and special characters.
Subsystem	A subsystem is a component of a system (e.g. Surveillance Data Processing would be a subsystem of ERAM).
Surveillance	Detecting and monitoring an aircraft's position.
Surveillance and Broadcast Services (SBS)	The system that provides ADS-B data to ERAM. ADS-B reports are sent to ERAM in FAA CAT033 and FAA CAT023 ASTERIX formats.
Surveillance Broadcast Interface	A data stream that provides ADS-B data from SBS to ERAM.
Surveillance Data	Messages that report the position of aircraft in flight.
Surveillance Integrity Levels (SIL)	One of the measures of the quality of ADS-B data.

Surveillance Radar	A Surveillance Sensor type. Traditional ground-based Surveillance Sensors (including Air Route Surveillance Radar (ARSR), Fixed Pulse Search (FPS), and Airport Surveillance Radar (ASR)) that provide Surveillance Data input to ECG.
Surveillance Sensor	A type of equipment that produces Surveillance Data as input for NAS systems.
SWAC	A data formatter for SAR data. SWAC uses DPE to parse through binary SAR files and extract out records of data. It then determines if there are requests that the recording can be formatted and generates text output, if requested.
System-Wide Tools	Tools that act on, or collect data on, the system as a whole. This includes the Error Monitor tool, which is a data capture capability that facilitates the preservation of voluminous diagnostic data.
TAPELIB	The name of the SAN attached tape library, which is part of the ESS.
Threshold	Minimum or maximum acceptable operational value for system capability or characteristic that, in the maintainer's judgment, is necessary to provide an operational capability that satisfies the mission need.
Time of Applicability (TOA)	Time at which the target position is expected to be an accurate estimate of the true target state vector.
Time of Message Reception (TOMR)	Time at which an ADS-B message was received by SBS.
Time of Representation (TOR)	For a radar target, it is the time when the antenna of the radar that reported the target is pointed at the azimuth of the target relative to that radar's location. For an ADS-B track report, it is that time when the antenna of the highest ranking enabled radar within the current SSC is predicted to be pointing at an azimuth that will be coincident with the azimuth of the smoothed track position predicted to result from the next ADS-B track update.
Tivoli Data Protection (TDP)	A component of TSM. Only the TDP for Oracle product is used for backup and restore of operational support processors.
Tivoli Storage Manager (TSM)	An IBM CAS product to centralize and automate backup and restore procedures and schedules. TSM consists of multiple components: TSM Client, TSM Server, TSM Storage Agent, Tivoli Data Protection, and Tivoli SANergy.
Trajectory	A representation of the path an aircraft is expected to take based on a Plan. A ground-referenced representation, in x, y, z, and t, of the expected path; based on flight intent information recorded in the Plan.

Transition	The process of moving operations from a legacy system to a new system. The process frequently requires both systems to be in operational readiness simultaneously.
Trial Plan	Any plan created by the user from a Current Plan or existing Trial Plan that is used to test whether a proposed change to the Current Plan will be conflict-free.
Universal Access Transceiver (UAT)	Aircraft equippage used to transmit an aircraft's position, velocity and additional information, once a second. The UAT's position report message is used for ADS-B Surveillance.
Unreasonable Track Report	A Track Report that is: Not horizontally Reasonable and Vertically Reasonable, or Beyond the end of the Trajectory for both distance and time. Whether or not a Track Report is reasonable ultimately determines the overall quality of the track data for an aircraft.
Up	Availability status of a resource, component, service, or interface indicating that it is functioning normally and has full redundancy as applicable.
Wide Area Multilateration Service (WAM)	A service to the FAA that provides supplementary data that will improve the accuracy of multilaterated position reports.
Window	In context of CHI, a rectangular area displayed on a computer screen that provides the maintainer with a set of related data or queries for additional input information. A window may cover all or part of the displayed area. More than one window may be displayed at a time on a display surface.
Workstation	A hardware suite consisting of a monitor, keyboard, and input device(s), at a minimum that allows the maintainer to perform system tasks.
1090MHz Extended Squitter (1090ES)	Aircraft equippage used to transmit an aircraft’s position, velocity and additional information, once a second. The 1090ES message from a Mode S transponder is used for ADS-B Surveillance.